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ABSTRACT

Written in late fall and early winter of 1978-79, the 12 papers in this collection provide a status report on various aspects of rural America and on governmental policies affecting rural America. The first paper examines terms commonly used in this area of public policy, revealing both the complexity of the issues and some of the contradictions inherent in a rural development policy. The second paper presents data for selected social and economic characteristics of non-metropolitan America. Six of the remaining papers deal with various aspects of service delivery, including health services, transportation, housing, and community facilities. One paper in this subject area evaluates rural educational problems, while another surveys rural labor markets and reviews federal programs aimed at rural manpower problems. Financing rural development is discussed in two papers, one describing need and resources and the other examining recent research findings and institutional changes. Of the final two papers, one deals with environmental protection and rural development, and the other describes local implementation of national rural development programs and policies. Appended is a document that describes rural community research and data needs. It discusses inherent difficulties in defining rural constituencies and communities and examines the rural oversight problem. (DS)

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96th Congress } COMMITTEE PRINT
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RURAL DEVELOPMENT: AN OVERVIEW

PREPARED BY THE

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FOR THE

SUBCOMMITTEE ON RURAL DEVELOPMENT

OF THE

COMMITTEE ON AGRICULTURE,
NUTRITION, AND FORESTRY
UNITED STATES SENATE

U.S. DEPARTMENT OF HEALTH,
EDUCATION & WELFARE
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FOREWORD

The study contained in this print consists of articles on various aspects of rural America and on governmental policies affecting rural America. As is the case in all such studies, the members of the committee do not necessarily subscribe to any of the statements made in the various articles.

HERMAN E. TALMADGE, *Chairman.*

COMMITTEE ON AGRICULTURE, NUTRITION, AND FORESTRY,
Washington, D.C., June 16, 1979.

Hon. HERMAN E. TALMADGE,
Chairman, Committee on Agriculture, Nutrition, and Forestry,
Russell Senate Office Building,
Washington, D.C.

DEAR MR. CHAIRMAN: The Congressional Research Service has prepared an excellent study entitled "Rural Development: An Overview".

I request that the study be printed as a committee print for use by the Subcommittee on Rural Development and other interested persons.

Thank you for considering this request.

Sincerely,

PATRICK J. LEAHY,
Chairman, Subcommittee on Rural Development.

U.S. SENATE,
COMMITTEE ON AGRICULTURE, NUTRITION, AND FORESTRY,
Washington, D.C., June 25, 1979.

Hon. PATRICK J. LEAHY,
U.S. Senate,
Russell Senate Office Building,
Washington, D.C.

DEAR SENATOR LEAHY: Thank you for your letter requesting that a study prepared by the Congressional Research Service entitled "Rural Development: An Overview" be printed as a committee print for use by the Rural Development Subcommittee and other interested persons.

Based upon your recommendation, the Committee will proceed to have the study printed.

With every good wish, I am

Sincerely,

HERMAN E. TALMADGE, *Chairman.*

LETTER OF TRANSMITTAL

THE LIBRARY OF CONGRESS,
CONGRESSIONAL RESEARCH SERVICE,
Washington, D.C., May 23, 1979.

Hon. PATRICK J. LEAHY,
Chairman, Subcommittee on Rural Development,
U.S. Senate,
Washington, D.C.

DEAR MR. CHAIRMAN: I am pleased to transmit to you the enclosed collection of papers, which describe conditions in various areas of life in rural America and identify current issues in public policy for rural areas. With one exception, the papers were written during the late fall and early winter of 1978–79, and reflect the state of affairs in rural America at that time.

This project, which was prepared for the use of the Congress at the request of the Congressional Rural Caucus, was coordinated and edited by Dr. Morton J. Schussheim, Senior Specialist in Housing and by Sandra S. Osbourn, Analyst in American National Government. The study is the joint product of a number of CRS personnel and Divisions. CRS staff members who wrote papers were: Anne M. Smith, Senior Specialists' Division; Richard Price and Paul M. Irwin, Education and Public Welfare Division; Dennis M. Roth, Jeffrey H. Burton, Robert Eprile, Philip Winters, Leon M. Cole, Stephen J. Thompson, and F. Jean Wells (whose 1976 paper on credit needs and resources still contains useful insight), of the Economics Division; Walter W. Wilcox and Susan R. Abbasi, Environment and Natural Resources Policy Division; and Sandra S. Osbourn of the Government Division.

We trust that these papers will be useful to the Senate, to the members of your subcommittee, and to other Members of Congress concerned with the many aspects of rural development.

With warm regards,

GILBERT GUDE, *Director.*

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INTRODUCTION

In late 1978, this collection of papers was revised and updated to provide a status report on various aspects of rural America and on governmental policies affecting rural America.

THE SETTING

The 12 papers that make up this volume are arranged to acquaint the reader, at the outset, with the context for the operation of contemporary rural policies and programs described in the remaining papers. This is done in two papers, "Rural Development: Terms, Concepts, and Policies," and "Some Social and Economic Trends in Nonmetropolitan America."

In the first paper, Sandra S. Osbourn examines some of the terms commonly used in this area of public policy—"rural," "nonmetropolitan," and "micropolitan"—an examination that reveals the complexity of the issues and some of the contradictions involved in a rural development policy. Her paper points out that all rural areas are not alike, and that geographic variation in socioeconomic conditions as well as differences in minority as compared to total population conditions must be taken into account when rural development policies are being considered. A rationale for continuing to differentiate between rural and urban, metropolitan and nonmetropolitan, or micropolitan and metropolitan areas in this predominantly urban age is included in this paper. As Thomas D. Ford has pointed out: [1]

> Perhaps because we have come to expect social homogenization as the ultimate end product of our great and rapid changes, the most surprising feature of the current state of rural society in the United States is the distinctiveness it has maintained. Observing the trends of change in rural society toward the patterns of urban society, social scientists extrapolated these trends to conclude that the two sectors would sooner or later merge into one indistinguishable "mass society." Implicit in reasoning was the assumption that the rate of rural social change would have to exceed that of urban social change, since it was obvious that rural society would have to catch up if the rural urban gap was to be closed. So far, the catching up has not taken place, and there are sound sociological as well as ecological reasons for believing it may never take place.

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[1] Ford, Thomas R., ed. Rural U.S.A.: Persistence and Change. Ames, Iowa State University Press, 1978. p. 14.

In the second paper relating to the setting for public policy in rural areas, Anne M. Smith presents data for selected social and economic characteristics of nonmetropolitan America. She points out that in recent years nonmetropolitan counties have been making strong gains in population, income levels, and employment opportunities, but that these achievements are not evenly distributed among all nonmetropolitan counties. The data indicate that the income level, the labor force participation rate, and the educational attainment of residents tend to increase as the size of the largest place in the nonmetropolitan county increases. During the 6 years between 1970 and 1976, nonmetropolitan areas experienced a larger rate of increase in population, 8 percent, than was experienced in metropolitan areas, 4.7 percent. Some people are choosing nonmetropolitan residences while commuting to jobs in metropolitan areas, but the expansion in the nonmetropolitan population is not limited to those counties with a large percentage of commuters. Nonmetropolitan employment opportunities have opened up in manufacturing, mining, and service industries. Ms. Smith concludes that the emerging demographic trends indicate strong prospects for continued nonmetropolitan growth. Effective governmental policies will be necessary to ensure that the nonmetropolitan population will continue to benefit from increased employment opportunities and income gains, and that progress can be made in meeting the concomitant demands for improved public services.

A TAXONOMIC FRAMEWORK

The remaining papers in this volume are arranged in accordance with Jerome M. Stam's "taxonomic framework for nonmetropolitan community research,"[2] which is illustrated in figure 1. Six of the papers deal with various aspects of the delivery of services in rural areas. They are grouped according to Stam's classification, using output orientation as the distinguishing feature. "People" services, defined as those which directly affect the individual in a nonphysical sense and therefore affect the social environment of the community members, include health, education, and employment services. "Physical-people" services, defined as services which influence both the physical-biological environment of a community and the behavior patterns of individuals in the community, that is, joint physical and social services affecting the environment of the community, include transportation and housing.[3] "Physical" services, which influence, alter, and determine the physical and biological environment of a community include community facilities such as waste disposal and water systems.

These services and their delivery systems are the result of an organizational structure which uses certain resources (including financial resources) to meet the demand for the services. The organization and resource activities are affected by rules which may affect both public and private decisions and can influence the scope and manner in which community goods and services are delivered. Thus, Stam's

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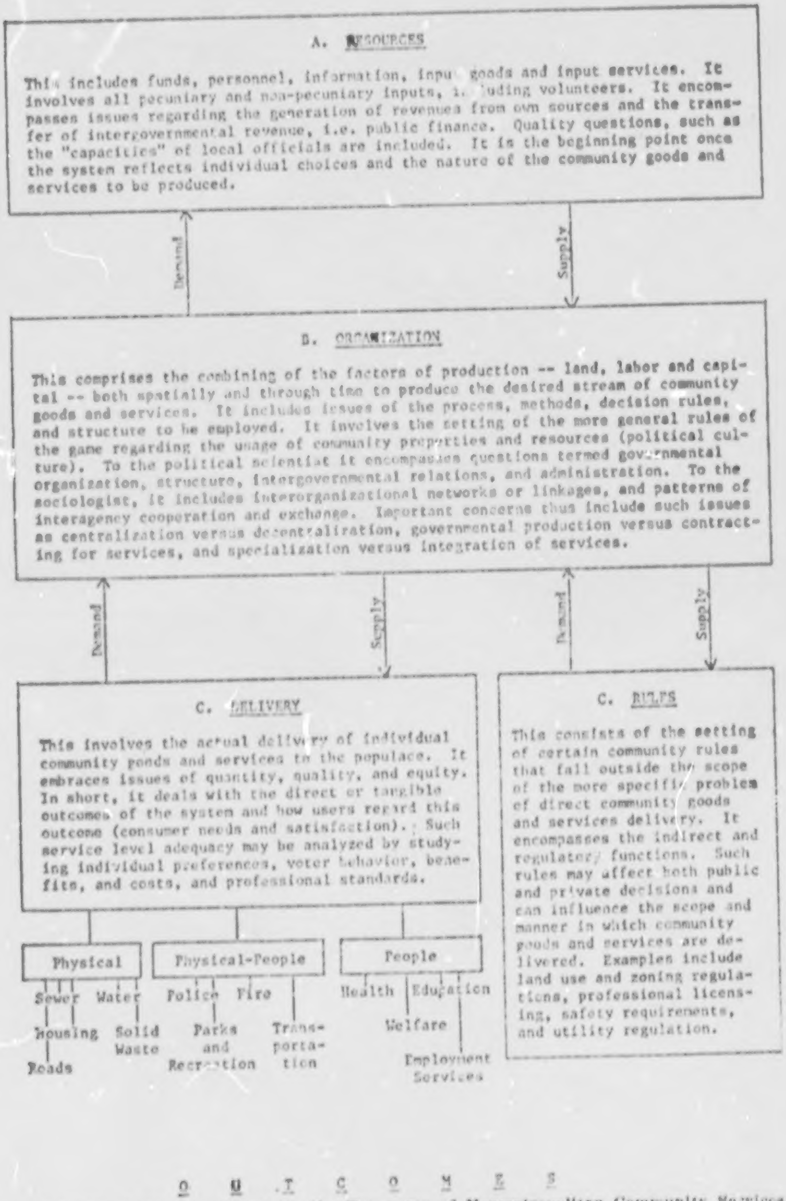
[2] Stam, Jerome M. On the Taxonomy of Nonmetropolitan Community Services Research. In U.S. Congress. Senate. Committee on Agriculture, Nutrition, and Forestry. National Conference on Nonmetropolitan Community Services Research. (Committee Print) Washington, U.S. Government Printing Office, 1977. p. 13–17.

[3] Stam classifies housing with the "physical services." It is classified here with the "physical-people" services since the quality of housing may affect behavior patterns.

Figure 1--A Diagrammatic Sketch of the Community Services Delivery System



A. RESOURCES

This includes funds, personnel, information, input goods and input services. It involves all pecuniary and non-pecuniary inputs, including volunteers. It encompasses issues regarding the generation of revenues from own sources and the transfer of intergovernmental revenue, i.e. public finance. Quality questions, such as the "capacities" of local officials are included. It is the beginning point once the system reflects individual choices and the nature of the community goods and services to be produced.

B. ORGANIZATION

This comprises the combining of the factors of production -- land, labor and capital -- both spatially and through time to produce the desired stream of community goods and services. It includes issues of the process, methods, decision rules, and structure to be employed. It involves the setting of the more general rules of the game regarding the usage of community properties and resources (political culture). To the political scientist it encompasses questions termed governmental organization, structure, intergovernmental relations, and administration. To the sociologist, it includes interorganizational networks or linkages, and patterns of interagency cooperation and exchange. Important concerns thus include such issues as centralization versus decentralization, governmental production versus contracting for services, and specialization versus integration of services.

C. DELIVERY

This involves the actual delivery of individual community goods and services to the populace. It embraces issues of quantity, quality, and equity. In short, it deals with the direct or tangible outcomes of the system and how users regard this outcome (consumer needs and satisfaction). Such service level adequacy may be analyzed by studying individual preferences, voter behavior, benefits, and costs, and professional standards.

C. RULES

This consists of the setting of certain community rules that fall outside the scope of the more specific problem of direct community goods and services delivery. It encompasses the indirect and regulatory functions. Such rules may affect both public and private decisions and can influence the scope and manner in which community goods and services are delivered. Examples include land use and zoning regulations, professional licensing, safety requirements, and utility regulation.

SOURCE: Jerome M. Stam. On the Taxonomy of Nonmetropolitan Community Services Research. In U.S. Congress. Senate. Committee on Agriculture, Nutrition, and Forestry. National Conference on Nonmetropolitan Community Services Research. (Committee Print).

classification system includes categories labeled resources, organization, and rules Four of the papers in this volume fall into those categories, and are discussed later in this introduction.

PEOPLE SERVICES

"People" services such as education, health, and employment services typically are not oriented toward rural or urban areas, but rather to certain classes of people wherever they may live. For example, there are currently no Federal aid programs for "rural educational assistance," just as there are no Federal programs for "urban educational assistance" or for "suburban educational assistance." Federal aid programs for education are directed at recognized areas of educational need, such as financial assistance for the education of children from low-income families, school lunch programs, and school libraries. Rural schools receive assistance (or may receive assistance) from virtually all of these Federal programs, though the programs have no specifically rural orientation. Health and manpower programs also emphasize the solution of specific problems, with little or no distinction between the characteristics of these problems in rural areas as opposed to urban areas.

In his paper on "Health and Health Services for Rural People," Richard Price finds that the principal health problems facing rural people are the shortages of health manpower and the inability of many people to purchase adequate health care. There are proportionally more poor people and more old people in rural areas. Both of these groups require more medical care than the general population.

Price concludes that the greatest improvements in the health of people in rural areas could probably best be accomplished by reducing unemployment and raising incomes, better housing, nutrition, and sanitation, as well as the control of environmental hazards. Although increasing the supply of health workers would not have a dramatic effect on the health of people in rural areas, Price explains why it is nevertheless an important goal.

Major organizational changes have been recommended as necessary to the improvement of the delivery and availability of health services. These include promotion of medical group practices, emergency medical systems, decentralization of health professional training, and the regionalization of health services systems. Major issues confronting Congress include reaching a consensus on the magnitude of the manpower shortage in rural areas, reversing the growth of medical specialization, dealing with disparities in payments for similar services to providers in rural and urban areas, realistically dealing with the quality issue, and the use of federally operated health systems.

Paul Irwin, in his paper on "Educational Problems and Federal Alternatives," evaluates rural educational problems by comparing such variables as enrollment figures, school finance, educational attainment and performance, staffing patterns, and orgnizational patterns in rural areas with the national average. The comparisons are designed to evaluate the degree to which rural students have an equal opportunity for access to education; for the most part they do not directly address questions of quality or success of an education.

In his outline of Federal alternatives and key issues with regard to rural education, Irwin notes that Federal educational programs currently exist to assist many recognized areas of educational need, although the level of funding is less than 10 percent of total elementary and secondary educational revenues. Rural schools receive assistance from most of these programs. One possibility for future policy is to continue these programs, supporting them at current funding levels. Alternatively, these funds could be redistributed within current programs to provide additional assistance to rural areas, to increase research and development projects focusing on rural eductional problems, or to allow greater flexibility in the use of Federal funds to meet locally determined needs through the consolidation of Federal programs. Another approach would be to require that States develop greater equity in their school financing systems, so that poorer school districts would be less dependent on locally taxable wealth in providing a quality education. This requirement would be included in Federal aid to education programs.

New Federal programs could be designed to meet rural needs not already addressed by current programs, including pupil transportation assistance, sparse population assistance, school construction, and general aid to education. These programs could be limited to rural education or they might be made available to assist any school district with demonstrable need.

The level of Federal financial assistance could be decreased or increased to match any combination of suggested alternatives. Various funding changes are suggested which range from a maximum decrease of almost $8 billion to a possible increase of nearly $20 billion above the current level of Federal outlays for elementary and secondary education.

Irwin identifies the following as the key issues to be faced in examining these alternative proposals: The proper role of the Federal Government in providing assistance to public elementary and secondary education; whether the assistance should be only financial or include standards of quality and performance of rural education; and whether the level of Federal aid for education is consistent with priorities for Federal assistance in all areas of governmental services. Finally, there is the question of whether rural educational needs justify special treatment beyond the assistance currently provided by Federal programs.

The third "people" service to be analyzed in this collection of papers, employment services, includes a survey of rural labor markets and a review of Federal programs aimed at rural manpower problems. Dennis M. Roth and Jeffrey Burton, in their paper "Rural Labor Markets and Federal Policy: An Overview," conclude that rural America has far brighter prospects for economic expansion than many of the Nation's urban centers. However, the likelihood is great that without effective policies of Government and private industry aimed at the least trained and undereducated rural citizens and at attracting jobs for those citizens, a large number of rural workers will not be affected by rural growth. Rather, it is likely that most new jobs will go to the more experienced and trained workers and to the well-educated new residents of rural communities, leaving the young, the poorly educated older worker, and the ill-trained unemployed or underemployed.

Roth and Burton identify the decentralization of manufacturing and the immigration of people as the two major trends affecting rural areas today. The decentralization of manufacturing will provide jobs for the semiskilled work force, but not necessarily for all rural workers. The emergent demographic shifts offer the prospect of new rural growth, bringing new industries, new construction and an array of services to meet the new population's needs.

The authors offer the following conclusions about employment prospects for rural Americans:

> 1. Employment in agriculture may continue at approximately its present level, or as is more likely, employment in agriculture will decline as increased productivity more than offsets increases in demand for agricultural products.
>
> 2. Manufacturing firms may continue to locate to rural areas, but at a slower rate than in the 1960's. In the past, new industries often attracted skilled workers from urban areas and "skimmed" the best rural workers, leaving many of the local work force untouched by the new industry.
>
> 3. Rural youth have few occupational choices. Many of those who remain in rural labor markets often lack the depth of education and training and cultural interaction that would help them get jobs once they become available. Young people are often the most trainable and most adaptable segment of the population; however, without new opportunities and comprehensive training and educational efforts, they may be severely handicapped. Further, the evidence suggests that there is a need to attract additional industries to rural areas, industries that will employ those rural residents most in need of jobs.
>
> 4. Older rural workers are often the ones least equipped to learn new jobs; they seldom migrate to locations offering new opportunities and generally have poor prospects of finding employment. Several manpower programs have been aimed at older citizens; however, many of those programs have provided public service jobs rather than training for new occupations.

PHYSICAL-PEOPLE SERVICES

Two "physical-people" services (services which influence both the physical-biological environment of a community and the behavior patterns of individuals in the community) are analyzed in this volume: Transportation and housing. Transportation policies tend to be aimed at the prosperity of places in that they reflect the premise that transportation costs can decisively affect the competitive position of shippers, can alter the structure of an industry, and can help determine the geographic distribution of economic activities and population. Although transportation policies alone are not the single decisive element in the development prospects of rural areas, they are important, as Dr. Leon Cole and Dr. Stephen Thompson point out in their paper on "Transportation in Rural America":

> Rural development experience indicates that although transportation investment and service is a necessary condi-

> tion for development to occur and continue, it alone does not provide a sufficient stimulus to cause development * * *. Nonetheless, transportation investment has played an integral part in the settlement and development of the American continent. Transport services tie open spaces and small towns into the system of larger cities and integrate them into the national economy and culture. Adequate transportation to and from other places within rural areas and between rural areas and major cities is an important determinant of the quality of rural as well as urban life. Today, the movements of materials, goods, and people are extremely critical to the functioning of complex national production, distribution and consumption systems.

Rural transportation issues tend to vary from region to region, reflecting the diversity within rural areas in topography, climate, economic activity, rate and nature of change, and in population characteristics. However, certain problems were mentioned often in the findings of a recent survey of testimony, statements, and position papers of a large cross section of rural-oriented individuals and organizations. These findings are reported by Cole and Thompson as at least a partial checklist of current rural transportation problems: Abandonment of unprofitable rail branch lines, prospects for rural road and bridge repair and improvements, highway safety problems and the absence of sufficient emergency care for accident victims in many rural areas, cost of fuel, the inadequacy of public transportation, especially for the young, elderly, poor, and handicapped, the distances to airports and cost of air transportation, slower speed limits, increased truck sizes and weights, gateway route requirements for regulated motor carriers, railcar shortages, and discriminatory freight rate structures among regions and among commodities.

Cole and Thompson note that the diversity of rural America may make it difficult, if not almost impossible, to administer equitably an expression of national transportation policy through completely uniform administrative guidelines. They suggest the procedures authorized by the Appalachian Regional Development Act and the Regional Rail Reorganization Act of 1973 as possible models for an approach that enables the establishment of a broad national policy while providing for its implementation through guidelines developed and administered on a regional and multi-State basis, and, alternatively, for taking the views of local and regional areas into account through a formalized process.

Housing is the second service to fall into the "physical people" category in this volume, since it involves physical facilities that influence both the physical-biological environment of a community and, to some extent, the behavior patterns of those in the community. In "Federally Assisted Housing in Rural America," Robert Eprile describes the basic Federal role as providing incentives to private industry and consumers to construct and purchase homes and providing subsidized housing to persons with low incomes. Federal incentives include tax deductions for mortgage interest and property tax payments, and Federal guarantees and insurance of mortgage loans. Federally assisted housing programs provide for the construction of homes for low- and moderate-income persons and subsidies for low-income persons living in private rental housing.

Current measures of housing quality show that for all characteristics except one (breakdowns in heating equipment) nonmetropolitan housing conditions are worse than metropolitan: In most categories, the proportion of bad nonmetropolitan units ranges from two to four times as high as the proportion for metropolitan areas and for the Nation as a whole. Though nonmetropolitan housing quality has improved considerably over the years, there remain more than 1 million families in nonmetropolitan areas who are ill-housed.

Federally assisted housing programs in nonmetropolitan areas are delivered, for the most part, by the Farmers Home Administration. Once a credit agency for small family farms suffering from the effects of the depression, FmHA has now evolved into the primary housing agency for communities up to 10,000 persons, plus designated credit-short areas between 10,000 and 20,000 population.

Eprile describes and evaluates several of FmHA's major programs. He concludes that the cumulative intent of congressional actions taken over the past 10 years has been to make it possible for more lower income families in more areas to benefit from FmHA housing programs. Despite these actions, fewer of those assisted in recent years have been families below the poverty level. This is due, in part, to the increasing cost of housing and in part to FmHA's administrative actions in setting higher income eligibility limits for "low-income" loans. The rental assistance program and a new deep subsidy homeownership program are new attempts to remedy this problem.

Eprile also identifies several key issues that will define the future role of FmHA: Should FmHA continue to make both farming loans and housing loans, or should FmHA's housing programs be separated from its other activities? Should Farmers Home target more of its programs toward those rural residents who have very low incomes? Can FmHA encourage a greater influx of private mortgage money into rural areas through increased use of loan guarantees?

PHYSICAL SERVICES

Several of the "physical" services provided by the Federal Government are discussed by Philip Winters in his paper on "Community Facilities in Rural Areas: The Federal Role." Many rural communities are currently experiencing either inmigration or outmigration of people, leading to a general overcrowding of community facilities in the first instance, and a general inability to maintain adequate community facilities in the second instance. The inmigration is a relatively recent occurrence; the outmigration is the historical pattern for rural areas. In both situations it is difficult, if not impossible, for many rural communities to provide adequate community facilities for their populations.

The Federal Government has created a number of programs that provide funds for the construction of community facilities. Usually these programs are part of a large overall program aimed at the economic development of lagging or distressed regions or distressed regions or places. Among these programs are those of the Economic

Development Administration, the Appalachian Regional Commission, and the Department of Agriculture. Other Federal programs distribute funds to communities which the communities can use for local facilities or other community needs. These programs include the community development block grant program of the Department of Housing and Urban Development and the general revenue sharing program of the Treasury Department.

Winters concludes that it would be unreasonable at this time to expect massive new infusions of Federal aid for rural community facilities. On the other hand, it is unlikely that current programs will be eliminated or drastically curtailed, since they enjoy considerable political support. Short-term Federal efforts may center on better coordination of the programs already in existence and continued at roughly current levels, in a move to make a more efficient use of the resources available.

In evaluating the impact of these programs, Winters finds that if the main thrust of the programs is to provide rural communities with needed facilities to improve living conditions, they are somewhat successful. If providing community facilities is just one of several means to achieve the goal of economic development, what success there has been is much less clear and uniform. Some areas of depressed rural America that have received aid through these programs remain economically underdeveloped. It is entirely possible that some areas may never respond to any economic development program and may remain economically stagnant and depressed. For these areas, the purpose of supplying community facilities becomes a matter of social welfare and not an attempt at supplying the infrastructure necessary for the economic development of the community.

RESOURCES

Financial resources, whether indigenous to the community or imported from outside the community are a continuing area of concern to rural communities, and are a primary factor in the quality and quantity of community services which can be made available. Two papers in this volume deal with this topic.

Jean Wells, in her paper "Financing Rural Development: Credit Needs and Resources," which was prepared in 1976 and still offers useful insights discusses the broad question of financial needs and resources of both the public and private sectors as related to the rural development goals defined in the Rural Development Act of 1972. She also discusses developments which may influence financial flows to and within rural America in the future. Wells finds that the few attempts to pull together information about financing sources and needs have not provided information in the form of estimates of overall amounts of public and private financial resources needed or available to meet rural credit needs. Most sources and uses of funds analysis has been on an aggregate United States or a sectoral (agricultural, household, business, and government) basis, rather than on a geographic basis.

Wells describes the major credit programs administered by the Farmers Home Administration. She emphasizes that rural development industrialization will require cooperation among Government, private institutions, individuals, country banks, and other financial institutions in addition to the FmHA programs if it is to succeed. It should be recognized that rural development financing is not only a matter of maximizing credit, investment, and equity resources for achieving economic growth on an aggregate level but also takes into account other factors to create the desired social fabric. Thus, legislation and regulatory actions must consider not only overall economic effects but social concerns inherent in rural development. The importance of this issue is suggested by the fact that rural development deals both with the long-range future of national patterns of population distribution and with American lifestyles.

Walter Wilcox, in his paper "Financing Rural Development: A Survey of Recent Research Findings and Institutional Changes," summarizes recent research findings on a wide range of resources available to rural areas, including nontax financing, municipal bonds, rural banks, and the nonfarm loans made available through the Farm Credit Administration. Wilcox also describes State financial support for rural development, noting that it most often takes the form of industrial aid programs aimed at promoting the location of industrial plant and equipment within the State. He summarizes data on Federal development outlays for rural areas, and provides brief descriptions of the resources made available by the Farmers Home Administration, the Small Business Administration, and the Economic Development Administration.

RULES

The "rules" category of Stam's classification relates to:

> * * * the setting of certain community rules that fall outside the scope of the more specific problems of direct community goods and services delivery. It encompasses the indirect and regulatory functions. Such rules may affect both public and private decisions and can influence the scope and manner in which community goods and services are delivered.

Many of the activities described in Susan R. Abbasi's paper, "Environmental Protection and Rural Development," fall into this category.

Many of the Federal programs and policies designed to protect the environment and natural resources of the Nation include rules which have significant impact on rural development. For example, the National Environmental Policy Act requires that all major Federal actions be preceded by an "environmental impact statement" (EIS) which sets forth all significant environmental consequences. Many of the programs designed to promote rural development entail activities for which an EIS is required. Abbasi notes that the preparation of an EIS alone does not guarantee that the adverse effects identified will be avoided.

A number of requirements in the basic clean air legislation of 1970 are intended to provide safeguards for air quality. Of particular importance to rural development are the requirements in the amendments of 1977 which have the effect of limiting some types of development—including industrial, residential, and other types—in order to prevent significant deterioration of aid quality in areas where the air is still cleaner than is required in the primary and secondary standards of the law. Although these requirements have been opposed by development interests as a "no-growth" policy, many States and rural localities are on record in favor of the measure, which would aid in preventing in rural places the woes of air pollution now visited on many industrial areas.

The basic legislation to control water pollution and provide assistance to local governments in constructing water and waste treatment plants, the Federal Water Pollution Control Act of 1972, was also amended in 1977. The basic law provides for control of any pollution from new sources through application of best available technology, a provision which would affect any new industrial development in rural areas. In addition, the act requires areawide land use planning and regulation of both specific sources of pollution and "nonpoint" sources, such as farm feedlots and fertilizer use. The 1977 amendments contain the rural clean water program, which augments control of such nonpoint pollution sources, and provides grants to control agricultural runoff.

The Flood Disaster Assistance Act affects rural development by requiring that land-use planning to avoid development in flood-prone areas be carried out by communities that wish to obtain Federal flood insurance. The law also prohibits Federal or Federally assisted construction loans and mortgages for flood-prone areas in communities that are not participating in the related land use planning program.

Taken together, these Federal policies and laws have considerable cumulative impact on rural development. Their effects are designed to protect the environment generally, and in some cases the rural environment particularly. The definition of "rural development" in the Rural Development Act of 1972 includes "the planning, development, conservation, and use of land, water, and other natural resources of rural areas to maintain or enhance the quality of the environment for people and business in rural areas," and it is this aspect of rural development that the rules described above are intended to implement.

ORGANIZATION

The "organization" box in Stam's classification scheme "includes issues of the process, methods, decision rules, and structure to be employed. It involves the setting of the more general rules of the game regarding the usage of community properties and resources (political culture). To the political scientist it encompasses questions termed governmental organization, structure, intergovernmental relations, and administration." These aspects of rural development are dealt with in Sandra S. Osbourn's paper on "Local Implementation of National Rural Development Goals."

Osbourn finds that the success or failure of national rural development objectives will be determined, to a great extent, by various trends affecting local rural institutions, by the governmental structure and political system in rural areas, and by the structure of the Federal delivery system.

Rural institutions, like urban institutions, are besieged with demands for new services which were previously provided by the family if at all. These institutions have also been greatly affected by the technological explosion which has led to specialization and large-scale production in every phase of society. Greater commitment to the adaptation of technology to meet special rural needs could make technological advances a blessing rather than a bane to rural communities.

Rural nonfarm interests in the past have not been as effective in influencing the development of national policies affecting them as have farmers. In recent years, however, the nonfarm rural interests have greatly strengthened their representation in Washington, through such organizations as the Congressional Rural Caucus, Rural America, Inc., the National Rural Center, and through existing organizations such as the National Association of Counties which have added the concerns of rural areas and small cities to their agendas. This increased presence of rural advocates in Washington (and in State capitals as well) reflects two other trends which are affecting rural institutions: The increasing interdependence of institutions in contemporary America and the growth of population in nonmetropolitan areas.

The purported inadequacy of local governments in rural areas has been a constant theme in public administration literature for at least 25 years. The existence of these thousands of units of local government, with all their varying strengths and weaknesses, must be taken into account in the design and implementation of any national rural development program.

Rural community leaders, in their dealings with the Federal Government, are frequently put off by what they perceive as attitudes of impersonality and unflexibility. Many local communities which have mobilized a rural community development process and which seek Federal assistance in meeting local goals find that the fragmentation of Federal rural development programs and policies creates a barrier to progress and a constant source of frustration.

The current administration has completed several studies related to rural development, and is at work on several others. A number of bills introduced in the 95th Congress would have overhauled the rural development structure at the Federal level; similar legislation is likely to be introduced in the 96th Congress. These activities could generate a fundamental debate over the content and development of a national rural development policy and its implementation.

RURAL DEVELOPMENT: TERMS, CONCEPTS, AND POLICIES[1]

INTRODUCTION

Almost all current literature dealing with rural development policies and programs, and with conditions in rural America, begins with a section on definitions, and several papers in this volume follow this practice. This practice reflects a growing recognition of the diversity of character and dynamics of change that prevail in rural areas in all modern, industrialized countries. A survey of the various commonly used terms in this area of public policy reveals both the complexity of the issues and some of the contradictions inherent in a rural development policy.

RURAL DEVELOPMENT

A review of standard dictionary definitions of the keywords in the title of this paper, "rural" and "development" reveals some interesting implications for public policy. The American Heritage Dictionary of the English Language provides the following definition for "rural":

(1) Of or pertaining to the country as opposed to the city; rustic.

(2) Of or pertaining to people who live in the country.

(3) Of or related to farming; agricultural. Compare urban.

The command to "compare urban" is one that is familiar to anyone who is acquainted with the literature on rural America. When Congress or an agency attempts to set targets or goals for rural areas, these are frequently stated as attempts to achieve parity with urban areas. This phenomenon is not peculiar to the American scene, but is common throughout the industrial world:[2]

> There is a general awareness among the policymakers in our world that rural areas in both developing and advanced countries tend to lag behind the urban regions in economic and social development. There is general agreement that measures have to be taken to eliminate this lag * * * in order to assure a satisfactory way of life for those who remain in agriculture, that is, a way of life which can compete with the stereotype of urban life, which sets rightly or wrongly the standard for what is considered as desirable, it is necessary to give rural people easy access to all the amenities which are characteristic for an urban-industrial society, or at least to give them indemnities

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[1] By Sandra S. Osbourn, analyst in American National Government, Government Division, Congressional Research Service, the Library of Congress.

[2] Constandse, A.K. Social Factors in Rural Development Planning in Advanced Countries. In Weitz, Raanan, ed. Rural Development in a Changing World. Cambridge, The Massachusetts Institute of Technology, 1971. p. 209–210.

or substitutes which prevent the growth of feelings of inferiority and of frustrations.

Further pursuit of the dictionary's definition of "rural" leads to an elaborate discussion of various synonyms, all of which are "descriptive of existence or environment which is close to nature": Arcadian, bucolic, rustic, pastoral, sylvan. The definitions of these synonyms add up to a description of the conditions of life in rural areas, as they are commonly understood in the English language: Sparsely settled, agricultural, ideal, simple, unsophisticated, natural environments, peace, unspoiled beauty. Two other standard dictionaries follow the same pattern. This would seem to indicate that, in the English language at least, the word "rural" is rich in associations and meanings. Such associations and meaning could have an effect on rural policies, to the extent that they reflect values which might be threatened by such policies.

On the other hand, these romantic associations or ideas of "rural" conditions may obscure the harsh conditions of human life which sometimes exist in the most beautiful rural settings, as the New York Times has pointed out:[3]

> If wild beauty were wealth, none of the people here would be poor. The isolated, graying shacks huddle among towering pines and hardwod trailing cascades of Spanish moss over wildflowers and myrtle. Where the forests yield grudgingly to the wetlands, acres of marsh grass bend in the wind, and lacework of estuaries ebb and flow with the tidal rhythms as they make their way to the sea. During the day, water glints through the grasses, and the sunset turns them bronze.
>
> But the timberlands of Jasper, much of them owned by paper companies, yield less than a dollar an acre in taxes, and pollution killed the oysters off Daufuskie long ago. "The welfare" is a major industry. Only the wealthy, notably in the resort communities on Hilton Head Island off the coast, can pay for beauty, and in Beaufort County, the major employer is the Marine Corps, which maintains two bases there, generating 70 percent of the area's income.

The second key word in the title of this paper, "development," is defined by the "American Heritage Dictionary" as "the act of developing:" "develop" includes the following definitions:

(1) To expand or realize the potentialities of; bring gradually to a fuller, greater, or better state.

(2) To bring into being: make active: generate.

(3) To make more available: put to use.

(4) To convert (a tract of land) to a specific purpose, as by building intensively.

The common theme running through each of these definitions is that of change, and change or adaptation to change is the goal of rural development programs and policies. The changes brought about by these programs and policies may, however, alter those desirable conditions of life that are embodied in the word "rural." This complicates the process of preserving the character of rural America while assisting it to contribute to and participate in the growth and well-being of the Nation as a whole—particularly those urban areas with which rural areas are constantly being compared in government policy documents as well as in the dictionaries.

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[3] King, Wayne, Poverty and Disease in Low Country Belle the New South Boom, New York Times, Apr. 1, 1977: A 1, A 11.

Public policy attempts to define "rural" have varied over the years. The Census Bureau defines "rural" as all open country areas and towns of fewer than 2,500 people, while "urban" is used to describe all cities and towns with populations over 2,500. This definition has been found to be too restrictive, and Federal programs are now designed to serve "rural communities" of various sizes, up to 50,000 population.

NONMETROPOLITAN DEVELOPMENT

The term "nonmetropolitan" development is now more frequently used in describing programs and policies for "rural" America. Nonmetropolitan refers to all areas that lie outside Standard Metropolitan Statistical Areas. This definition, while it is much broader than the rural urban definition of the Census Bureau, can obscure many important diversities within areas defined as metropolitan or nonmetropolitan. For example, policies for "nonmetropolitan" America (as a substitute for "rural" America) will relate to the open countryside as well as to small cities such as Hagerstown, Md. (population 37,000) and Charlottesville, Va. (population 42,000). Policies for "metropolitan" America (as a substitute for "urban" America) will apply to the residents of Hibbing, Minn. (population 17,000) as well as to the population of Duluth, Minn. (population 100,000).

In recent years, the Department of Agriculture has developed a method for classifying the various components of metropolitan and nonmetropolitan America, so that the diversity that exists within the broader classifications can be described and taken into account in policymaking activities. Researchers in the Department's Economics, Statistics, and Cooperatives Service have identified 10 separate groups of counties (4 metropolitan and 6 nonmetropolitan) which are classified according to the varying degrees of urban influence upon the counties' populations. The classification represents an urban-rural dimension with the most urban being the core counties of greater metropolitan areas and the most rural being nonmetropolitan counties with no urban residents and not adjacent to an SMSA. The county groups are as follows:[4]

I. Metropolitan counties

1. *Greater metropolitan.*—Counties of SMSA's having at least 1 million population in 1970 (175 counties). Examples: New York City, Chicago.

Core counties.—Counties containing the primary central city of greater metropolitan areas (48 counties). Examples: Cook County, Ill., St. Louis City and County.

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[4] U.S. Department of Agriculture, Economic Research Service, Social and Economic Characteristics of the Population in Metro and Nonmetro Counties, 1970. (Agricultural Economic Report No. 272) Washington, U.S. Government Printing Office, 1975. p. 4.

Fringe counties.—Suburban counties of greater metropolitan areas (127 counties). Example: Montgomery County, Md.

2. *Medium metropolitan.*—Counties of SMSA's of 250,000 to 999,999 population (258 counties). Example: Phoenix.

3. *Small metropolitan.*—Counties in SMSA's of less than 250,000 population (179 counties). Example: Portland, Maine.

II. Nonmetropolitan counties

4. *Urbanized adjacent.*—Counties contiguous to SMSA's and having an aggregate urban population of at least 20,000 residents (191 counties).

5. *Urbanized not adjacent.*—Counties not contiguous to SMSA's and having an aggregate urban population of at least 20,000 residents (137 counties).

6. *Less urbanized adjacent.*—Counties contiguous to SMSA's and having an aggregate urban population of 2,500 to 19,999 inhabitants (564 counties).

7. *Less urbanized not adjacent.*—Counties not contiguous to SMSA's and having an aggregate urban population of 2,500 to 19,999 inhabitants (799 counties).

8. *Totally rural adjacent.*—Counties contiguous to SMSA's and having no urban population (246 counties).

9. *Totally rural nonadjacent.*—Counties not contiguous to SMSA's and having no urban population (626 counties).

The classification has been presented here to illustrate the diverse rural and urban patterns that exist within both the metropolitan and the nonmetropolitan categories. These diversities could have serious implications for public policy. For example, a major theme of rural development literature is that nonmetropolitan life in general is characterized by considerable deprivation, with major human needs going unmet. Rural residents—the "people left behind"—are seen as living in conditions characterized by fewer jobs, lower incomes, and lower educational status.

A detailed analysis of the socioeconomic status of the metro and nonmetro populations shows that these perceptions are most accurate for people who live in totally rural areas.[6] On the other hand, the population of urbanized nonmetropolitan counties compare quite favorably with those of metropolitan areas in terms of age structure, school enrollment, income, and labor force participation. There are substantial differences in indicators of "well-being" between minority population and the total population across all 10 categories of rural and urban orientation, but the socioeconomic status of the minority population is particularly depressed in the most rural settings. The results of that analysis indicate that variation in socioeconomic conditions among nonmetro areas, and differences between minority populations and the rural populations as a whole must be taken into account when rural development policies are being considered.

Another problem with the metropolitan/nonmetropolitan classification, as Anne Smith points out in her paper on social and economic trends, is that the composition of the two classifications changes over time. Between 1970 and 1977, some 34 areas were carved out of the nonmetropolitan areas and added to the 243 metropolitan areas recognized at the earlier date. The recently designated metropolitan areas, not surprisingly, were the fastest growing counties in nonmetropolitan areas during the past 5 years. As compared with other nonmetro counties, they had higher incomes, higher labor force participation rates, and higher proportions of people who are high school graduates.

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[6] U.S. Department of Agriculture. Economic Research Service. Social and Economic Characteristics of the Population in Metro and Nonmetro Counties, 1970. (Agricultural Economic Report No. 272) Washington, U.S. Government Printing Office, 1975.

The periodic removal of such counties from the nonmetropolitan sector, under established procedures of the Office of Management and Budget, means that the nonmetropolitan areas will chronically lag behind the metropolitan areas as indicated by a number of measures of economic well-being, and "parity" with metropolitan areas for the remaining nonmetro parts of the Nation will continue to be an elusive goal. Perhaps ruralists will have to give more attention to other values (neighborliness, closeness to nature, the quiet life) than to the usual measures of "success" that are conventionally used in a growth-oriented society. Alternatively, they could seek more rapid economic growth across the board and try to graduate as many rural places as possible into metropolitan status.

MICROPOLITAN DEVELOPMENT

Recently, a new term has been introduced into the rural development lexicon: "micropolitan." This term was devised by Luther Tweeten and George Brinkman to describe policies and programs for all residents of the "micropolis," from a single resident in the open country to all the residents of a city of 50,000 (or larger, if the problems faced are predominantly small-city problems.) [6]

Tweeten and Brinkman find this term to be more useful than the "rural" definition which is confined to those living in cities of 2,500 population or less. They also consider it preferable to "nonmetropolitan" in that it avoids connotations associated with a "non" word, and it does not deemphasize the open country component of the micropolis.

Micropolitan development is also different from the more traditional terms "rural development" or "nonmetropolitan development" in that it is defined as "improving the well-being of micropolitan residents, *wherever they may reside*." [7] Compare this with the definition of rural development as summarized by the President's Task Force on Rural Development: [8]

> . . . the creation of job opportunities, community services, a better quality of living, and an improved social and physical environment in the small cities, towns, villages, and farm communities *in rural America.*

Note that the emphasis in the second definition is on improving the quality of certain places in order to provide a better quality of life for people. The emphasis in the micropolitan definition is on improving the well-being of people, who may or may not choose to remain in micropolitan places. These definitions reflect a continuing disagreement in public policy as to whether emphasis should be put on place development or people development. Traditional rural development policies have tended to emphasize the former.

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[6] Tweeten, Luther and George L. Brinkman. Micropolitan Development: Theory and Practice of Greater-Rural Economic Development. Ames, Iowa University Press, 1976, pp. 4–7.

[7] Tweeten, op. cit., p. 4. Italics added.

[8] The President's Task Force on Rural Development. A New Life for the Country. Washington, U.S. Government Printing Office, 1970. p. 1. Italics added.

RURAL/URBAN DIFFERENTATION—WHY?

Why differentiate between rural and urban, metropolitan and nonmetropolitan, or micropolitan and metropolitan? Some say that in this urban age the problems of rural areas or small cities are not that different from those of urban areas and large cities, except in scale. The Nixon administration expressed this belief in its proposal to create a Department of Community Development which would deal with both urban and rural development problems.[9]

> There is no neat dividing line between "urban" and "rural." Small towns and rural communities have many of the same problems as large cities. Moreover, with the passage of time, many smaller communities become urban in character. Thus, there is no longer a rationale for splitting the Federal response to the needs of communities based on size alone.

This attitude has been characterized as "metropolitan," that is, a belief that either everyone will eventually move to the cities or that most nonmetropolitan places will eventually "grow up" to a point where they can provide all the purported benefits of urbanization.

According to a different point of view, however, national policy should include the possibility of choosing from a variety of residential settings: A "balance" between urban and rural America that provides an alternative to the bigger-is-better syndrome. Proponents of this view would argue that there are a number of reasons for differentiating between urban and rural policies and programs, and for including both in national development policies. Some of these reasons are summarized below.

(1) As we noted in the dictionary survey summarized above, there are certain values attached to the word "rural" (and to "small town" as well) that have important meaning for many people. The preservation of these values might be more difficult if the distinctions between "rural" and "urban" were ignored.

(2) National standards based entirely on urban conditions and experience may have a harmful effect on the rural population. For example, national standards for medicare payments, until altered, made it impossible for certain rural health care experiments to continue.

(3) National reliance on urban models of public service delivery (on the grounds that there is no difference between rural and urban services) may stifle experimentation that could be beneficial to both urban and rural areas. For exam-

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[9] U.S. Executive Office of the President. Office of Management and Budget. Papers Relating to the President's Departmental Reorganization Program; a Reference Compilation. Washington, U.S. Government Printing Office, 1971. p. 46-47.

ple, rural schools have long been urged to consolidate, in order to be able to adopt urban educational standards. The physical limits to consolidation have been reached, and the limitations of the urban schooling model are becoming more apparent. Some education professionals now are reassessing the noncognitive benefits of small schools (local control, the close relations possible among professionals, parents, students, and community, and the opportunity for many more students to participate in school activities and to assume leadership positions),[10] which may become a new goal for urban schools. In addition, some experimentation is now going on which has a uniquely rural orientation, rather than imitating urban models.[11] Thus, the tendency to apply the urban model as the only possible model for modern service delivery, and to ignore urban/rural differences may be modified in the future, thereby opening the way for new experimentation which could benefit both urban and rural students.

(4) The renewed growth of many small communities across the country has been accompanied by concern over the ability of these areas to plan for the consequences of growth. At the same time, a number of rural or small town spokesmen are expressing concern that the application of traditional planning techniques, all of which reflect an urban orientation, are both unsuitable for and potentially harmful to the communities. It may be that federally supported planning efforts should recognize these differences and accommodate them, rather than continuing to apply big city perspectives in small town contexts.[12]

(5) Federal programs that are designed with an urban orientation may inadvertently contribute to unmanageable rural growth patterns. For example, energy policies that fail to take into account the greater reliance of rural residents upon the automobile and the lack of the public transportation alternatives which are provided to meet urban residents may result in a return to the patterns of rural depopulation which have characterized most of our history. On the other hand, an evaluation of the Community Development Block Grant program in North Carolina shows that the present allocation process favors county governments and their unincorporated areas at the expense of the incorporated areas of nonmetropolitan counties. This is expected to create strong pressures for unmanaged rural development.[13]

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[10] Sher, Jonathan P. and Rachel P. Tompkins. Economy, Efficiency, and Equality: The Myths of Rural School and District Consolidations. Washington, National Institute of Education, U.S. Department of Health, Education, and Welfare, 1976. p. 2.

[11] U.S. Department of Agriculture. Office of the Secretary. Rural Development Progress; Fourth Annual Report of the Secretary of Agriculture to the Congress. Washington, U.S. Government Printing Office, 1977. p. 34.

[12] Cohen, Richard A. Small Town Revitalization Planning: Case Studies and a Critique. Journal of the American Institute of Planners, v. 43, Jan. 1977: 3–12. Sargent, Frederick O. Rural Environmental Planning, Burlington, University of Vermont. 1976. Evernar, Dee. Toward an Awareness of Special Needs: Planners and Small Towns. Small Town, v. 6, Oct. 1975.

[13] Beaton, W. Patrick, James L. Cox, and Ron M. Morris. Toward an Accidental National Urbanization Policy. Journal of the American Institute of Planners, v. 43, Jan. 1977: 56.

(6) Despite overall improvement in the socioeconomic conditions of nonmetro residents, it is still true that the "well-being" declines as one moves from the most urban to the most rural parts of the country. Considerations of equity would seem to require that this continuing lag be overcome, and unless there is special attention given to the conditions of the rural poor, their needs may be submerged in the more publicized needs of the urban poor.

SOME SOCIAL AND ECONOMIC TRENDS IN NONMETROPOLITAN AMERICA[1]

INTRODUCTION

This report presents data for selected social and economic characteristics of nonmetropolitan America. For the purposes of this report nonmetropolitan America is defined in accordance with the Census Bureau's use of standard metropolitan statistical areas (SMSA's) and non-SMSA's rather than other possible categories such as urban/rural. Unless otherwise stated the data will refer to the nonmetropolitan areas as defined in 1970.

In recent years nonmetropolitan counties have been making strong gains in many ways. As these trends are examined one should keep in mind the tremendous diversity among the counties we define as nonmetropolitan. These diverse regions are subject to a broad range of influences so that recent achievements recorded in nonmetropolitan areas are not evenly distributed among nonmetropolitan counties.

During the 1960's and for many decades earlier the **pervasive trend** had been for metropolitan populations to increase more quickly than nonmetropolitan populations. People were moving to the cities and to the suburbs from farms and small towns searching for jobs and the metropolitan lifestyle. Early in the 1970's there were indications that this historic trend was being reversed. As the 1970's continue nonmetropolitan areas are making strong gains in many areas, including population, income levels, and employment opportunities.

Population estimates for 1977 show that of the 212.6 million persons living in the United **States**, 32.7 percent, **nearly 70 million persons**, were living in nonmetropolitan areas as defined in 1970.[2]

The data also indicate that the income level, the labor force participation rate, and the educational attainment of residents tend to increase as the size of the largest place in the nonmetropolitan county increases. Significant improvements are being made but the discrepancies in attainment between nonmetropolitan and metropolitan will continue in the foreseeable future. In part, this is due to definitional procedures. As some nonmetropolitan areas grow and become more similar to the metropolitan, these counties are reclassified as metropolitan. Thus, the 1960 nonmetropolitan population as defined by the 1960 census was 66.4 million. Using the 1970 census definition of metropolitan/nonmetropolitan areas, the 1960 nonmetropolitan population was recorded at 59.7 million. Between 1960 and 1970 an additional 31 areas were designated as standard metropolitan statistical areas (SMSA's) by the Federal Government—212 to 243. As of December 1977 there were an additional 34 SMSA's bringing the total to 277. The effect of such designations is to reduce the population officially recognized as nonmetropolitan. In 1977, 10 million persons were living in 34 standard metropolitan statistical areas (SMSA's) which had been reclassified from nonmetropolitan (non-SMSA's) since 1970.[3] Unless otherwise stated the data will refer to the nonmetropolitan areas as defined in 1970.

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[1] By Anne M. Smith, Senior Reference Assistant, Senior Specialists Office, Congressional Research Service, The Library of Congress.

[2] U.S. Bureau of the Census, "Current Population Reports," Series, P–23, No. 75, "Social and Economic Characteristics of the Metropolitan and Nonmetropolitan Population: 1977 and 1970." U.S. Government Printing Office, Washington, D.C., 1978, p. 4.

During the 7 years between 1970 and 1977, nonmetropolitan areas experienced a larger relative increase in population, 10.7 percent, than was experienced in metropolitan areas, 4.4 percent. Nonmetropolitan areas had a net gain of 2.3 million migrants during this period.[4]

TABLE 1.—POPULATION CHANGES, 1970-77

[In percent]

	Change in population between 1970 and 1977	1977 distribution of nonmetro population by size of largest place
U.S. total	6.4	
Metropolitan total	4.4	
Nonmetropolitan total	10.7	100.0
Counties with no place of 2,500 or more	19.3	12.4
Counties with a place of 2,500 to 24,999	9.1	62.4
Counties with a place of 25,000 or more	10.7	25.3
Counties designated metropolitan since 1970[1]	19.2	
Other nonmetropolitan counties	9.4	

[1] This group of counties consists of 25 nonmetropolitan areas, designated SMSA's between 1970 and December 1973. The 9 SMSA's designated since January 1974, are not part of this group but are included in the nonmetropolitan total

Source: Current Population Reports, U.S. Bureau of the Census, 1970 metropolitan area definition.

The most rapid growth in the country is occurring in nonmetropolitan counties with no place of 2,500 or more—19.3-percent increase between 1970-77. The second most rapid growth was experienced by counties designated metropolitan since 1970.[5] The population in these counties has increased by 19.2 percent during the 1970's from 8.4 million in 1970 to nearly 10 million in 1977. These areas were followed by the suburbs of metropolitan areas with less than 1 million in population—12.5 percent during the first 7 years of the decade.[6]

GROWTH BY COMMUTING PATTERNS OF NONMETROPOLITAN RESIDENTS

Another way of looking at the growth patterns would be to consider the commuting patterns of the residents. The Population Division of the Bureau of the Census has grouped nonmetropolitan counties by percentage of commuters to SMSA's.[7] An important part of the nonmetropolitan growth has been counties with a high percentage of commuting to metropolitan areas. During the 1970 to 1976 time period the most rapid growth—11.5 percent—was experienced by 178 nonmetropolitan counties with 20 percent or more commuters to SMSA's. During the 1960's these counties increased their populations by 9.6 percent. The 334 nonmetropolitan counties with 10 to 19 percent commuters to SMSA's grew by 7.9 percent. But the expansion in the nonmetropolitan population is not limited to those counties with a large percentage of commuters. Even those nonmetropolitan counties with less than 10 percent commuting to metropolitan areas have grown more since 1970 than the national average. While the national average percentage change in population was 5.6, the 471 counties with 3 to 9 percent commuters grew by 7.5 percent. The 1,467 counties with less than 3 percent of the population commuting grew by 7.4 percent from 1970 to 1976, an increase nearly five times greater than during the sixties.

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[3] U.S. Bureau of the Census, "Current Population Reports," Series P-23, No. 75, "Social and Economic Characteristics of the Metropolitan and Nonmetropolitan Population; 1977 and 1970," U.S. Government Printing Office, Washington, D.C., 1978, p. 3.

[4] Ibid. p. 5.

[5] This group of counties consists of 25 nonmetropolitan areas designated SMSA's by the Office of Management and Budget between 1970 and December 1973. The nine SMSA's designated since January 1974 are included in the nonmetropolitan total but are not part of the grouping "counties designated metropolitan since 1970."

[6] U.S. Bureau of the Census, "Current Population Reports," Series P-23, No. 75, "Social and Economic Characteristics of the Metropolitan and Nonmetropolitan Population; 1977 and 1970," U.S. Government Printing Office, Washington, D.C., 1978, p. 2.

TABLE 2.—NONMETROPOLITAN POPULATION CHANGE BY COMMUTING TO METROPOLITAN AREAS

	Percentage change in population	
	1970-76	1960-70
Nonmetropolitan counties (2,455 counties)	7.8	4.0
20 percent or more commuting (178 counties)	11.5	9.6
10 to 19 percent (331 counties)	7.9	7.0
3 to 9 percent (479 counties)	7.5	5.4
Less than 3 percent (1,467 counties)	7.4	1.5
Metropolitan	4.8	17.1
United States	5.6	13.1

Source: U.S. Bureau of the Census, Current Population Reports Series P-20, No. 324, "Population Profile of the United States: 1977." U.S. Government Printing Office, Washington, D.C. 1978.

DIFFERENCES IN MIGRATION PATTERNS AND GROWTH BY REGION

By region, the Northeast and the North Central regions experienced net outmigration between 1970 and 1976. The South and the West experienced net inmigration. In all regions except the South the nonmetropolitan areas showed substantially stronger population growth over metropolitan areas. From 1970 to 1976, the largest discrepancy in population growth between nonmetropolitan and metropolitan areas occurred in the Northeast. The nonmetropolitan Northeast grew by 8.4 percent; whereas, the metropolitan Northeast grew by 0.3 percent. In the North Central region, the growth in nonmetropolitan areas was 4.2 percent and only 1 percent in metropolitan areas. The West grew by 16.1 percent in nonmetropolitan areas and by 9.4 percent in metropolitan areas.[8]

In the South the nonmetropolitan growth was a strong 8.2 percent but the percentage change in the population was 10.4 in metropolitan areas. The South experience is of further interest since historically the South had net outmigration. However, during the 1970's, the South has experienced net inmigration. More than one-quarter of the South's population growth since 1970 and more than one-half of its net inmigration has been accounted for by changes in the population in Florida.[9]

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[7] U.S. Bureau of the Census, "Current Population Reports," Series P-20, No. 324, Population Profile of the United States: 1977." U.S. Government Printing Office, Washington, D.C., 1978, p. 31, table 17.

[8] Compiled by the Economics, Statistics, and Cooperatives Services, formerly the Economic Research Service, of the U.S. Department of Agriculture, 1978.

TABLE 3.—REGIONAL POPULATION GROWTH, 1970-76

[Percentage change]

	Net movement	Nonmetropolitan	Metropolitan
U.S. total		8.0	4.7
Northeast	Outmigration	8.4	.3
North Central	Outmigration	4.2	1.0
South	Inmigration	8.2	10.4
West	Inmigration	16.1	9.4

Source: Compiled by the Economics, Statistics, and Cooperatives Services of the U.S. Department of Agriculture, 1978.

Two-fifths of the growth in the resident population of the United States between 1970 and 1977 occurred in the States of California, Florida, and Texas. The 15 fastest growing metropolitan areas are located in the South and West, 9 of which were located in Florida.[10]

Within these broad regions it is possible to locate smaller areas experiencing rapid changes in population. Calvin Beale in testimony before Congress has discussed the regional aspects of this nonmetropolitan directed migration.[11] According to the data supplied by the Department of Agriculture, rapidly growing nonmetropolitan counties are particularly noticeable in the mountain West, and in the northern and central Rockies and intermountain basins of the West. These are areas where the base population has been small and sparsely settled. Employment gains and retirement and recreation also have had an effect on settlement in the Ozark region. These factors have similarly produced an increase in the north country of Michigan, Wisconsin, and Minnesota. An increase in manufacturing has aided the growth in previously declining upland areas of the South, east of the Mississippi.

Declining nonmetropolitan counties are likely to be found in the Great Plains, in the Mississippi Delta, and through scattered areas of the Corn Belt or lower parts of the South. But even in these counties there appears to be a slower rate of loss than was formely true.

Between 1970 and 1977 the Mountain States recorded a 21-percent growth in population.[12]

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[9] U.S. Bureau of the Census, Current Population Reports, Series P–20, No. 279, "Population Profile of the United States: 1974." U.S. Government Printing Office, Washington, D.C., 1975. p. 19.

[10] U.S. Bureau of the Census, Current Population Reports, Series P–20, No. 324, "Population Profile of the United States: 1977." U.S. Government Printing Office, Washington, D.C., 1978. p. 27.

[11] Data presented by Calvin L. Beale, Leader, Population Studies Group, Economic Research Service, U.S. Department of Agriculture in hearings before the Subcommittee on Housing and Community Development of the Committee on Banking, Currency and Housing. U.S. House of Representatives, Sept. 4, 5, and 6, 1975.

[12] U.S. Bureau of the Census, "Current Population Reports," Series P–20, No. 324, "Population Profile of the United States: 1977," U.S. Government Printing Office, Washington, D.C., 1978. p. 27.

HOUSEHOLD TYPE

In recent years there has been a disproportionate increase in several types of household formations. Households consisting of persons living alone, family households maintained by a woman with no husband present, and households maintained by single (never married) persons are among the most rapidly growing. Historically these groups have expressed a preference for residing in metropolitan areas. It is not clear whether an increasing number of these nontraditional households are choosing nonmetropolitan residences. In 1978, 34 percent of all families resided in nonmetropolitan areas. Among families maintained by a woman (no husband present), 28 percent lived in nonmetropolitan areas. Of families maintained by a man (no wife present) 32 percent were living in nonmetropolitan areas in 1978.[13]

CHANGES IN THE LABOR FORCE AND LABOR FORCE PARTICIPATION RATES BETWEEN METROPOLITAN AND NONMETROPOLITAN AREAS

Between 1960 and 1970, the male labor force in nonmetropolitan counties showed little change. While in the United States the number of males aged 14 years and older grew by 16.6 percent, the nonmetropolitan male labor force grew by only 1 percent. The metropolitan male labor force increased by 13.3 percent during the decade of the 1960's.

From 1960 to 1970, the female labor force showed strong growth in both nonmetropolitan and metropolitan areas. The U.S. female population aged 14 years and older grew by 20 percent during this decade. The female labor force grew by 33.4 percent in nonmetropolitan counties and by 38.9 percent in metropolitan counties.

During the 1960's the greatest growth in the labor force (44 percent) was experienced in the suburban counties of SMSA's with 1 million people or more. In these counties the male labor force increased by 32.3 percent and the female labor force increased by 71.6 percent. The least amount of labor growth (−0.4 percent) was experienced in totally rural nonmetropolitan counties not adjacent to a SMSA. In these totally rural counties during the 1960's the male labor force declined by 12.9 percent. But the female labor force increased by 27.8 percent in these areas.[14]

The 1977 civilian labor force in nonmetropolitan areas was 29.8 million, an increase of 27.3 percent since 1970. In metropolitan areas the civilian labor force expanded from 56 million to 65.9 million for an increase of 17.7 percent.

The male nonmetropolitan labor force participation rate in 1977 was 73.6 percent. There was very little variation in the male participation rate by the size of the nonmetropolitan county—73.4 percent in counties with no urban population to 73.8 percent in counties with a place of 25,000 or more.

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[13] U.S. Bureau of the Census, "Current Population Reports," Series P-60, No. 116, "Money, Income and Poverty Status of Families and Persons in the United States: 1977." (Advanced Report), U.S. Government Printing Office, Washington, D.C., 1978, Various paging.

[14] "Social and Economic Characteristics of the Population in Metro and Nonmetro Counties, 1970," by Fred K. Hines, David L. Brown and John M. Zimmer, Economic Research Service, U.S. Department of Agriculture, Agriculture Economic Report, No. 272, pp. 62–63.

TABLE 4.—LABOR FORCE STATUS—PERSONS 16 YEARS OLD AND OVER, BY SEX, BY TYPE OF RESIDENCE

	Males				Females			
	Percent of those ages 16 and over in civilian labor force	Percent change from 1970	Unemployment rate		Percent of those ages 16 and over in civilian labor force	Percent change from 1970	Unemployment rate	
			1977	1970			1977	1970
United States, total	75.7	−0.13	7.5	3.9	48.0	14.8	8.5	5.2
Metropolitan total	76.7	−.9	7.6	3.9	49.2	13.9	8.6	4.9
Nonmetropolitan total	73.6	1.8	7.1	4.0	45.4	17.6	8.3	5.7
Counties with no place of 2,500 or more	73.4	5.3	6.0	4.0	43.5	31.4	7.3	5.9
Counties with a place between 2,500 and 24,999	75.5	1.8	6.8	4.0	44.7	16.4	8.2	5.8
Counties with a place of 25,000 or more	73.8	0	8.5	3.9	48.0	15.7	8.8	5.5
Counties designated Metropolitan since 1970	73.0	−2.1	8.2	3.3	46.8	17.0	7.3	5.2

Source: Compiled from "Current Population Reports" U.S. Bureau of the Census.

In 1977 the female nonmetropolitan labor force participation rate was 45.4 percent. The female labor force participation rate for nonmetropolitan counties tended to increase as the size of the largest place in the county increased. The labor force participation rate for females living in counties with no urban population was about 43.5 percent compared with 48 percent for females living in nonmetropolitan counties with a place of 25,000 or more.[15]

The male metropolitan labor force participation rate was 76.7 percent in 1977. This reflected a 73.5-percent rate in the central city areas and a rate of 78.9 percent in the suburban rings of the metropolitan areas.

The female metropolitan labor force participation rate was 49.2 percent in 1977. In central cities the rate was 48.2 percent in 1977 while in suburban rings of metropolitan areas the rate was 50 percent.[16]

Prior to 1965, women aged 45 to 64 years of age were largely responsible for the increase in the female labor force participation rate. Since then the rise in female participation has been concentrated among women aged 20 to 34 years of age. Their participation rate advanced by 21 percentage points between 1965 and 1977. Currently adult women comprise nearly 37 percent of the civilian labor force up from about 30 percent in the late 1950's. The proportion for adult men was 54 percent, down 10 points since 1957.[17]

Numerous social and economic trends have influenced the changing male/female proportions of the labor force. Women's participation has been affected by the drop in fertility rates. There is greater social acceptance of young wives and mothers working as well as an increased proportion of women who have been divorced, separated, or never married. Other factors include the desire to increase or maintain family living standards, the effects of antidiscrimination laws, and the women's liberation movement.

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[15] U.S. Bureau of the Census, "Current Population Reports," series P. 23, No. 75 "Social and Economic Characteristics of the Metropolitan and Nonmetropolitan Population: 1977 and 1970." U.S. Government Printing Office, Washington, D.C. 1978, various paging.

[16] Ibid. Compiled from table 11, p. 62.

[17] "Employment and Training Report of the President: 1978." Teenagers comprise the remaining proportion of the labor force.

Contributing factors for the decreasing proportion of males in the labor force include some men choosing early retirement because of the availability of increased social security coverage and benefits levels and greater availability of disability insurance. Longer school attendance and increased alternatives to work such as homemaking and leisure (partly because of increasing female participation) are contributing factors keeping young men out of the labor force.[18]

EMPLOYMENT OPPORTUNITIES

Nonmetropolitan areas increased employment at a higher annual average rate than the rate in metropolitan areas between March 1970 and 1977, 3.5 percent and 2 percent, respectively. The total growth in employment was 24.4 percent in nonmetropolitan areas and 14.2 percent in metropolitan areas. During this 7-year period the highest rate of nonmetropolitan growth was in finance, insurance, and real estate which grew by 43.3 percent. This growth was followed closely by an increase of 43 percent in professional and related services.[19]

As would be expected, the recent economic recession had a definite impact on the growth in employment. During the 3-year period from 1970 to 1973, employment in the construction industries in nonmetropolitan areas was growing at an average annual rate of 8.2 percent. But the average annual rate of employment in construction in nonmetropolitan areas for 1970 to 1977 was 2.9 percent. The employment growth in trade also slowed from the average annual rate during 1970 to 1973 of 5.3 percent to the average annual rate of 3.9 percent when considering the longer time period.[20]

JOB AND LABOR FORCE MIGRATION

More manufacturing jobs are moving to nonmetropolitan areas to make use of lower land and labor costs. Recent increases in coal production and exploration for oil and natural gas also are improving employment opportunities in nonmetropolitan areas. Other new nonmetropolitan job opportunities are related to service-type industries.

The work force also migrates and it appears that male and female workers are migrating in different directions. Whereas male workers had a net migration (112,300 workers) to nonmetropolitan areas during 1970 to 1976, female workers have been migrating to metropolitan areas (net migration of 34,400 workers). The men are moving to nonmetropolitan counties to take advantage of increased employment opportunities in such male-dominated industries as mining. The inflow of women to metropolitan counties has been in response to nonmetropolitan unemployment in industries employing large numbers of women such as apparel and textiles and in response to a larger pool of administrative and professional jobs in metropolitan counties.[21]

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[18] Ibid.

[19] 1977 data compiled from U.S. Bureau of the Census, "Current Population Reports," series P-23, No. 75. "Social and Economic Characteristics of the Metropolitan and Nonmetropolitan Population: 1977 and 1970." U.S. Government Printing Office, Washington, D.C. 1978, pp. 88–89, table 15.

[20] 1977 data—Ibid. 1973 data—"Rural Development Goals: Third Annual Report of the Secretary of Agriculture to the Congress", U.S. Department of Agriculture, 1976, p. 7.

DIFFERENCES IN MEDIAN INCOMES IN NONMETROPOLITAN AND METROPOLITAN AREAS

The nominal increase in per capita personal income for the United States between 1965 and 1974 was from $2,785 to $5,449, a rise of $2,664. During the same period the nonmetropolitan average annual rate of increase—8.65 percent was larger than the metropolitan rate—7.49 percent, but the amount of increase was greater in metropolitan counties—$2,776 compared with $2,333.

The ratio of nonmetropolitan per capita income to metropolitan per capita showed gradual improvement during the time period 1965 to 1974. In 1965, the nonmetropolitan per capita income was 69.5 percent of the metropolitan level—$2,111 and $3,037 respectively. In 1970, this percentage was 73.3—$3,129 and $4,263. This rose to nearly 75 percent in 1972—$3,633 and $4,861. In 1974, the nonmetropolitan income was 76.4 percent of the metropolitan income level—$4,444 and $5,813.[22]

FAMILY INCOME

The median income in 1976 of nonmetropolitan families ($12,600) was less than the median income for metropolitan families (about $15,800). The nonmetropolitan incomes lagged behind both the median income levels of central city and suburban families—about $14,000 and $17,100 respectively. The median income of nonmetropolitan families tended to increase as the size of the largest place in the county increased. For example, in 1976 the median income of nonmetropolitan families living in counties with no urban population was about $11,400 compared with $14,100 for families living in nonmetropolitan counties with a place of 25,000 or more in population.[23]

Using 1976 constant dollars and comparing median family income levels in 1976 and 1969, it is apparent that nonmetropolitan incomes are showing strong improvement. In 1969 the nonmetropolitan median family income was 74.3 percent of the metropolitan level ($11,931 and $16,048 respectively). By 1976 the nonmetropolitan income was 81 percent of the metropolitan level ($12,831 and $15,841). In real terms the median family income in nonmetropolitan areas grew by 7.5 percent ($11,931 to $12,831) between 1969 and 1976. Nonmetropolitan families living in counties with no urban population obtained the largest percentage gain (17.4) in median income between 1969 and 1976—$9,739 and $11,433 respectively.

In constant dollar terms a loss of 1.3 percent ($16,048 to $15,841) was experienced in the median family income level of metropolitan areas.

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[21] U.S. Bureau of Economic Analysis. "Survey of Current Business." "Work Force Migration Patterns, 1970–1976." Vol. 58, No. 2, February 1978, pp. 17–20.

[22] Per capita income data computed by the Bureau of Economic Analysis, U.S. Department of Commerce.

[23] U.S. Bureau of the Census. "Current Population Reports," series P–23, No. 75, "Social and Economic Characteristics of the Metropolitan and Nonmetropolitan Population: 1977 and 1970." U.S. Government Printing Office, Washington, D.C., 1978, p. 104, table 17.

In 1969 the gap between nonmetropolitan and metropolitan median family income levels was $4,117. By 1976, this gap had narrowed to $3,010.

Nonmetropolitan families earned a median income of $13,789 in 1977 with 43 percent of all nonmetropolitan families earning less than $10,000 per year. Metropolitan families earned a median income of $17,371 with 34 percent of the families receiving incomes of less than $10,000 in 1977. Nonmetropolitan median family income seems to be staying at about 80 percent of the metropolitan median family income level. But the dollar gap was $3,582 in 1977, which is a larger gap than in recent years.

EDUCATIONAL DIFFERENCES BETWEEN METROPOLITAN AND NONMETROPOLITAN AREAS

In looking at educational levels attained, there is considerable difference between younger and older age groups in both metropolitan and nonmetropolitan areas. In 1974, among nonmetropolitan whites aged 45 years and older, only about 45 percent had completed high school. For those 25 to 44 years old, 72 percent had completed this level of schooling. This improvement in educational attainment was observed for both nonfarm and farm residences in nonmetropolitan areas. In metropolitan areas, the proportion of the older group completing high school was 56 percent, and in the younger group—80 percent.[24]

In 1977, 65 percent of the U.S. population aged 25 years and over were high school graduates. This achievement ranged from 52.4 percent of the nonmetropolitan population living in counties with no urban population to 72.1 percent of the suburban population.[25]

TABLE 5.—INCOME AND EDUCATIONAL ATTAINMENT

	Median income in 1976[1]	Percent high school graduates by age, 25 and over
U.S. total	$14,958	64.9
Metropolitan total	15,841	68.1
Nonmetropolitan total[2]	12,831	58.3
Counties with no place of 2,500 or more	11,433	52.4
Counties with a place of 2,500 to 24,999	12,626	57.6
Counties with a place of 25,000 or more	13,958	62.8
Counties designated metropolitan since 1970[3]	14,106	63.1

[1] 1970 metropolitan area definition.
[2] Current Population Reports, U.S. Bureau of the Census.
[3] 1976 income by 1977 residence.

Note: This group of counties consists of 25 nonmetropolitan areas designated SMSA's between 1970 and December 1973. The 9 SMSA's designated since January 1974 are not part of this group but are included in the nonmetropolitan total.

AGE AND POVERTY DISTRIBUTION BETWEEN NONMETROPOLITAN AND METROPOLITAN AREAS

As of 1976, in the United States 10.4 percent of the population was aged 65 years and older. The nonmetropolitan population had 14.7

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[24] 1974 data—U.S. Bureau of the Census, "Current Population Reports," Series P-23, No. 55, Social and Economic Characteristics of the Metropolitan and Nonmetropolitan Population: 1974 and 1970. U.S. Government Printing Office, Washington, D.C. 1975, p. 10, table L.

[25] 1977 data—U.S. Bureau of the Census, "Current Population Reports," Series P-23, No. 75, "Social and Economic Characteristics of the Metropolitan and Nonmetropolitan Population: 1977 and 1970. U.S. Government Printing Office, Washington, D.C. 1978, pp. 54–55, table 9.

percent in this age grouping. In metropolitan areas, 8.9 percent of the population were 65 years and older.

Those over 65 in nonmetropolitan areas are more likely to have incomes below the low-income level as currently defined by the Federal Government. This low-income (poverty) definition has as its basis a nutritionally adequate food plan designated by the Department of Agriculture for "emergency or temporary use when funds are low." Since 1969 annual adjustments in the index have been based on changes in the Consumer Price Index. The 1977 poverty threshold level of $6,191 is for a nonfarm family of four. Adjustments are made by size of family.

In 1976, nearly 25 million persons (11.8 percent) of the U.S. population fell below low-income levels. This represented 10.7 percent of the metropolitan population and 14.0 percent of the nonmetropolitan population. Of those 65 years and older in the United States, 3.3 million (15 percent) were in poverty in 1976. In nonmetropolitan areas 19.8 percent of those 65 years and older are in poverty compared with 12.1 percent of this age group in metropolitan areas.

TABLE 6.—POPULATION BELOW LOW-INCOME LEVELS IN 1976

	Percent of population—		
	Below low-income level	Aged 65 yr and over	65 yr and over below low-income level
United States	11.8	10.4	15.0
Nonmetropolitan total	14.0	14.7	19.8
Metropolitan total	10.7	8.9	12.1

Source: Compiled from the U.S. Bureau of the Census, "Current Population Reports," series P-60. This table reflects 1976 income status by 1977 residence.

There is some encouragement to be found in these poverty figures. Although 14 percent of the nonmetropolitan population was below the low-income level in 1976, this low-income segment was 17.9 percent of the population in 1969.[26] This improvement also is apparent if one considers the proportion of the nonmetropolitan low-income population to the total population in poverty. In 1969, 45.8 percent of the low-income population lived in nonmetropolitan areas. This level dropped to 40.7 percent in 1972. In 1976, the percentage of those in poverty who lived in nonmetropolitan areas declined to 39 percent.

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[26] Compiled from the U.S. Bureau of the Census. "Current Population Reports," Series P-60.

HEALTH OF AND HEALTH SERVICES FOR RURAL PEOPLE[1]

INTRODUCTION

The materials contained in this paper are intended to describe health conditions in rural areas in the United States, to outline proposals which might offer some improvement in these conditions, and to identify some of the issues faced by Congress as it considers actions to effect improvements.

SUMMARY

The principal health problems facing rural people are the shortages of health manpower and the inability of many people to purchase adequate health care. There are proportionally more poor people and more old people in rural areas. Both of these groups require more medical care than the general population.

Surprisingly, middle and upper income persons in rural areas are about as healthy as their urban counterparts, despite a shortage of health workers in rural areas.

Most rural people appear satisfied with the medical care they receive, based on surveys reported.

The greatest improvements in the health of people in rural areas could probably best be accomplished by reducing unemployment and raising incomes, better housing, nutrition, and sanitation, as well as the control of environmental hazards. Although increasing the supply of health workers would not have a dramatic effect on the health of people in rural areas, it is important for a number of reasons which are discussed in this paper.

To improve health services for rural people, it will be necessary to expand the supply of health workers for rural areas, improve the organization and administration of health systems in rural areas, and improve the ability of people to purchase health services.

The most effective short-term way of expanding the number of physicians and other health workers in short supply is probably through scholarships granted in return for commitments to serve in rural communities.

To improve the productivity of scarce resources in rural areas, to assure that necessary services are available when needed, and to create an environment attractive to health providers, major organizational changes would have to be promoted. Among those that have been recommended are promotion of medical group practices, building emergency medical systems, decentralization of health professional training, and the regionalization of health services systems.

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[1] By Herman Schmidt, Specialist in Social Legislation, Education and Public Welfare Division—Revised by Richard Price, analyst in social legislation, Education and Public Welfare Division, Congressional Research Service, the Library of Congress.

In the absence of national health insurance, the most effective way of increasing rural people's ability to purchase health service is to improve economic conditions. Other approaches to improve health insurance policies are also considered in this paper.

Major issues confronting Congress as it considers improvements in health conditions in rural areas include reaching a consensus on the magnitude of the manpower shortage in rural areas, reversing the growth of medical specialization, dealing with disparities in payments for similar services to providers in rural and urban areas, realistically dealing with the quality issue, and the use of federally operated health systems.

HEALTH CONDITIONS IN RURAL AREAS

A. HEALTH RESOURCES AVAILABLE TO RURAL PEOPLE

1. Health workers

The evidence is conclusive that rural people have far fewer health workers available to attend to their needs than do people in urban areas. The following tables point this out.

Active Non-Federal Physicians Involved in Patient Care by County Classification: 1976 Ratio Per 100,000 Population[1]

Total	137
Nonmetropolitan:	
Less than 10,000 inhabitants	41
10,000 to 24,999 inhabitants	50
25,000 to 49,999 inhabitants	72
50,000 or more inhabitants	92
Metropolitan:	
Potential metropolitan	114
50,000 to 499,999 inhabitants	129
500,000 to 999,999 inhabitants	143
1,000,000 to 4,999,999 inhabitants	169
5,000,000 or more inhabitants	204

[1] Physician Distribution and Medical Licensure in the United States, 1976. American Medical Association, p. 16.

Although data are not as current, earlier data on other health workers show a similar situation.

DISTRIBUTION OF SELECTED HEALTH PERSONNEL PER 100,000 POPULATION, METROPOLITAN AND NONMETROPOLITAN AREAS, 1971–74[1]

Personnel	Year	Per 100,000 population	
		Metropolitan	Nonmetropolitan
Pharmacists	1974	50	43
Registered nurses	1972	411	292
Dentists	1974	56	34
Physicians, doctors of osteopathy	1971	4	3
Podiatrists	1974	4	1
Optometrists	1973	9	9

[1] Data provided by Bureau of Health Manpower, DHEW, September 1978.

According to the Health Resources Administration,[2] the rural counties of 28 States have experienced a decline in the number of physicians for the period 1960 to 1972. The greatest decline was in Illinois, where the number of physicians in rural counties dropped from 160 to 106, a decline of 33.8 percent. On the other hand, some States such as California showed large increases in the number of physicians practicing in rural areas. Based on a preliminary examination of the trends in physician movement, a substantial part of the changes appear to be caused by changes in population in rural areas. For example, while the numbers of physicians in rural areas in Illinois decreased by 33.8 percent, the ratio of physicians to rural population declined by only 2.4 percent. Similarly, in California the increase in the physicians ratio in rural counties was only 7.4 percent, while the number of physicians increased by over 50 percent. In Virginia, the numbers of physicians in rural counties declined by 17.6 percent, while the ratio of physicians to population increased by 4.6 percent.

These data would appear to show that the loss of physicians is not as severe as might be perceived at first glance, because population decreases have accompanied such decreases. These data, of course, do not speak to the matter of the adequacy of the numbers of physicians in most instances in rural counties.

Finally, it would appear that medical school graduates are increasingly setting up their practices in larger communities. Less than 1 percent of the medical school graduates who graduated during the period from 1960 through 1965 set up practices in communities of less than 10,000. Such communities comprise 2.5 percent of the Nation's population.[3]

In some instances, the above findings are current through 1970, 1971, or 1972. They, therefore, do not describe the situation for the last several years, during which time interest in rural areas might be considered to have increased. No data have come to the attention of the Congressional Research Service, however, that is suggestive of any change in the trends described above.

2. *Hospitals*

In 1974, there were 429 hospital beds per 100,000 population in nonmetropolitan areas, and 450 hospital beds per 100,000 population in metropolitan areas.[4]

Rural areas generally are considered not to have a shortage of hospital beds, and in fact, are considered by many experts to have a surplus of beds. Until the 1940's, rural areas had a shortage of hospital beds. With the passage of the Hill-Burton Act, entitled the Hospital Construction and Survey Act of 1946, substantial amounts of money were made available to rural areas to build hospitals.

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[2] Management Analysis Branch, HRA, DHEW, "State Trends in Physicians in Urban and Rural Counties: 1960, 1970, and 1972." Report No. 76–10, July 30, 1975. Available from HRA.

[3] U.S. Congress. House. Committee on Agriculture. Subcommittee on Family Farms and Rural Development. "Federal Health Policies in Rural Areas in the United States." Washington, U.S. Government Printing Office, 1974. 174 pages. p. 11.

[4] "Physician Distribution and Medical Licensure in the United States, 1976." American Medical Association, p. 17.

The Hill-Burton program provided $3.7 billion during the period from 1948 through 1971 to support construction of 10,748 projects costing a total of $12.8 billion.[5] Rural areas received a slightly larger share of Hill-Burton funds proportionately than other larger urban areas. Between 1948 and 1971, all communities under 50,000 received 67.2 percent of all Hill-Burton funds. According to the 1960 census, those communities comprised 63.8 percent of our total population.[6]

It is fair to conclude that hospitals generally are favorably distributed between rural and urban areas except for rural communities with less than 2,500 people. It must be kept in mind that hospitals are institutions requiring highly trained personnel, and a great amount of expensive, highly technical equipment. In many cases, therefore, it may not be feasible to have a hospital in small rural communities, but to look to alternatives that will assure that hospital needs are met. Such alternatives might include an emergency service system which can link people who need emergency care quickly and carefully to emergency care centers, as well as ambulatory care centers which have well-defined arrangements for support from larger medical centers.

3. Nursing homes

There is limited information on nursing homes in rural areas. According to the National Center for Health Statistics, in 1976, 35 percent of all nursing home beds were in nonmetropolitan areas, or approximately 490,039 beds. Nursing homes in nonmetropolitan areas had approximately 451,000 residents in them in the same year.[7]

In 1976, 32.7 percent of the total population in this country lived in nonmetropolitan areas. Based on population, there are proportionally more nursing home beds and nursing home patients in nonmetropolitan areas. Approximately 37 percent of persons over 65, however, live in nonmetropolitan areas.[8] Since the great majority of patients in nursing homes are elderly, the number of nursing home beds and nursing home residents in nonmetropolitan areas is not unusual.

4. Problems in the quality of services

In an article entitled "The Small General Hospital" by Walter O. Spitzer, the author noted:[9]

> The problems of small general hospitals can be presented succinctly in the form of a diagnosis: The quality of services delivered in or by small community hospitals is below the standard that the present state of knowledge affords. Moreover, whatever inefficiency exists in the delivery of services in any hospital is aggravated in the small community hospital.

The Social Security Administration in administering the medicare program has long recognized that there were serious deficiencies in small rural hospitals. Initially, approximately 500 hospitals, most of which contained 50 beds or less and were located in rural areas, did not meet the conditions of participation in the medicare program. They were given special temporary certification, however, because the people living in the hospitals' service areas could not do without care, regardless of the quality. In 1978, 36 hospitals failed to meet one or more conditions of participation in the medicare program.[10]

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[5] Lave, Judith R. and Lester B. Lave. "The Hospital Construction Act. An Evaluation of the Hill-Burton Program, 1948–1973," the American Enterprise Institute for Public Policy Research, Washington, May 1974, p. 13.

[6] Ibid., p. 20.

[7] Data provided by National Center for Health Statistics official, October, 1978.

[8] Bureau of the Census. "Characteristics of the Population below the Poverty Level: 1976." P-60, no. 115, issued July 1978, p. 41–47.

[9] Spitzer, Walter O. "The Small General Hospital: Problems and Solutions." Milbank Fund Quarterly, October 1970.

We know very little about the quality of care provided by physicians, regardless of where they practice. One study that did look at the quality of physician care by general practitioners in rural areas in North Carolina in the 1950's found that 44 percent of the general practitioners studied provided poor or marginal care.[11]

It would be unreasonable to conclude from the study that care rendered in all rural areas by general practitioners, or even by general practitioners in rural North Carolina today, is of poor quality. However, there is need for concern for a situation where the number of incoming physicians are not keeping pace with physicians leaving rural areas, and where the average age of physicians in rural areas continues to rise. The older physicians become, the longer they are away from any formal training. Given the absence of any requirements to relicense or recertify practicing physicians as to their level of competence and given the greater degree of isolation experienced by rural physicians, the question of quality differentials between urban and rural physician merits a closer look.

B. THE USE OF HEALTH SERVICES BY RURAL PEOPLE

Data for the period 1973–74 on physician office visits shows that metropolitan (SMSA) people visited doctors 5.2 times a year while people in nonmetropolitan (outside SMSA) areas visited doctors 4.5 times a year.[12] These figures are consistent with past data showing that rural people tend to see the doctor in his office less frequently than urban people.

Approximately 90 percent of rural people have a regular source of physician care. For 73 percent of the rural population, that source is a physician and for 17 percent, a clinic. The 90 percent is roughly the same as the experience of metropolitan persons outside our central cities, and considerably better than our central cities.[13] The percentage of persons in rural areas seeing doctors during 1970 were roughly the same as for those people in our central cities and slightly less than persons in metropolitan areas that did not live in central cities.[14]

People in rural areas saw a dentist an average of 1.3 times a year in 1973–74, while people in central cities saw a dentist 1.6 times, and people in metropolitan areas outside central cities 1.9 times.[15]

One measure of personal attention to preventive measures relates to whether expectant mothers see a physician during their first trimester of pregnancy, since this is the time when possible complications need to be determined and when mothers receive instructions on proper health related behavior. Ninety percent of rural mothers saw a doctor during the first trimester in 1970, which was slightly less than the experience for mothers in metropolitan areas, but outside the central cities, and considerably higher than mothers in central cities.[16]

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[10] Data provided by medicare official on Oct. 2, 1978.

[11] Peterson, Osler L., M.D. "An Analytical Study of North Carolina General Practice—1953–54." Journal of Medical Education, pt. 2, vol. 32, No. 12.

[12] National Center for Health Statistics. "Health Characteristics by Geographic Region, Large Metropolitan Areas, and other Place of Residence, United States, 1973–74." (PHS) 78–1540, p. 31.

[13] Andersen, Ronald et al. "Health Service Use: National Trends and Variations—1953–1971." DHEW pub. No. (HSM) 73–3004. October 1972. p. 6.

[14] Ibid., p. 11.

[15] Health Characteristics by Geographic Region, p. 54.

There is little disparity between urban and rural people regarding the use of hospital services. Hospital use appears to depend more on the level of income of the population than where they live, with low-income persons using hospitals to a greater extent than higher income persons.[17]

C. THE ABILITY OF RURAL PEOPLE TO PURCHASE HEALTH SERVICES

Although 33 percent of American people live in nonmetropolitan areas, about 39 percent of the poor live in such areas, according to the information in the following table.[18]

PERSONS BELOW THE LOW-INCOME LEVEL, BY RESIDENCE, 1976

Residence	Total U.S. population	Persons in poverty[1]	Percentages of total population in poverty
U.S. total	212,303,000	24,975,000	11.8
Metropolitan areas	142,931,000	15,229,000	10.7
Inside central city	59,922,000	9,482,000	15.8
Outside central city	83,008,000	5,747,000	6.9
Nonmetropolitan	69,372,000	9,746,000	14.0

[1] The classification of families and unrelated individuals as being below the low-income level is based on the poverty index adopted by a Federal interagency committee in 1969. This index is based on a sliding scale of income, adjusted for such factors as family size, sex and age of family head, number of children, and farm or nonfarm residence. To keep the poverty standard constant over time, thresholds are updated annually based on changes in the Consumer Price Index. The low-income threshold for a nonfarm family of 4 was $5,815 in 1976.

The following table shows the disparity of health insurance coverage between urban and rural persons.[19]

In addition to the lower rates of coverage by health insurance for rural people, there is evidence that rural people get far less for their dollars than urban persons. This relates to the nature of the insurance

PERCENTAGE OF PERSONS UNDER 65 YEARS OLD HAVING HOSPITAL AND SURGICAL INSURANCE COVERAGE, BY RESIDENCE, 1974

Area of residence	Hospital insurance[1]		Surgical insurance[1]	
	Covered	Not covered	Covered	Not covered
All residence	77.8	20.1	76.3	21.8
SMSA	79.3	18.6	77.6	20.3
Outside SMSA:				
Nonfarm	74.3	23.4	73.1	24.6
Farm	75.0	24.2	73.8	25.4

[1] Includes persons of unknown coverage status.

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[16] Andersen, p. 22.

[17] Ibid., p. 18.

[18] Bureau of the Census. "Characteristics of the Population Below the Poverty Level: 1976," P-60, No. 115, issued July 1978. p. 6.

[19] National Center for Health Statistics. DHEW. "Hospital and Surgical Insurance Coverage: United States—1974." No. (HRA) 77-1545. August 1977. p. 19.

market, where policies are sold either as group policies, covering groups such as persons employed by a company, and the families of such employees, or are sold as individual policies. Group policies, because they are administratively less costly per person covered and because persons in groups, particularly employed groups, tend to be healthier, return over 90 percent of premiums in the form of health benefits. Health benefits are defined as payments to providers or payments to covered persons for health services provided to them. Whereas group policies return over 90 percent, individual policies provided by commercial insurers return less than 55 percent.[20] The following dialog occurred between Congressman James Corman and West Virginia State Insurance Commissioner Sam Weese during hearings on national health insurance conducted by the House Ways and Means Committee in 1974:

> Mr. CORMAN. I want to buy the most insurance I can. Which category do I buy into?
>
> Mr. WEESE. You would buy a basic hospitalization and a major medical, which would really be the best of the lot.
>
> Mr. CORMAN. Now, if I am an individual and I am just one of few Americans left who is lucky enough to not be a part of a group, and I want to buy that policy all by myself, how much is that going to cost me in West Virginia?
>
> Mr. WEESE. If you buy it as an individual in West Virginia on a monthly basis, it would cost you approximately $50 a month. If you would buy it on a group plan, you can buy basic hospitalization with a major medical through Blue Cross or Blue Shield for something between $36 and $40 a month.

Only 20 percent of the over 2.5 million persons employed in agriculture have group health insurance policies.[21] Similar data are not available on the nonfarm population.

D. THE ATTITUDES OF RURAL PEOPLE CONCERNING THEIR HEALTH CARE

In view of the problems which appear to exist relating to the availability of care in rural communities, it is of interest to determine how rural people feel about the performance of the health care system.

In October 1971 and June 1972, the Potomac Associates commissioned the Gallup organization to do national surveys to determine how health care consumers and providers felt about health care in the United States.[22] The Gallup organization surveyed 1,562 persons in October 1971 and 1,574 in June 1972. Of the total number sampled, 44.5 percent were classified as living outside cities and suburbs. Among the questions asked was how much confidence the interviewees had in being able to get good medical care for themselves or their families.

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[20] Mueller, Marjorie Smith. "Private Health Insurance in 1972—Health Services Enrollment and Finances." Social Security Bulletin, vol. 37, March 1974 : 37.

[21] Kolodrubetz, Walter W. "Group Health Insurance Coverage of Full-Time Employees." 1972. Social Security Bulletin, vol. 37. p. 19.

[22] U.S. Congress. Senate. Committee on Labor and Public Welfare. Subcommittee on Health. Hearings on National Health Planning and Development Act, 1974. Pt. 2. Washington, U.S. Government Printing Office, 1974. 710 p. Pp. 624–645.

Eighty-four percent of the total sample and 83 percent of persons classified as living outside the cities or suburbs said they either had a great deal or a fair amount of confidence in getting good medical care when they needed it.

In response to a request to list the five most important problems with medical care, the persons surveyed listed the shortage of physicians most important, complicated and costly insurance second, unnecessary treatment which raises costs third, insurance as being too limited fourth, and doctors' refusal to make house calls fifth. Although the survey did not specify how rural people ranked their health care problems, the above finding is included because of the large number of persons surveyed (44.5 percent) who lived outside the cities and suburbs.

A second survey reported here was conducted in Arkansas by the Cooperative Extension Service of the University of Arkansas to determine health attitudes and practices in the State.[23] The Survey included households stratified for regions and education.

The sample consisted of 3,089 households and 1,072 high school students. The distribution of the sample on age, income, education, number of children, and number of parents living at home was identical to State census data. Fifty percent of the persons surveyed were from rural areas.

Seventy-two percent of all households surveyed were satisfied with their access to care. Blacks felt less satisfaction with access than did whites, with high-income blacks reporting higher dissatisfaction with their access to health services than did higher income whites, or lower income whites and blacks. Fifty-seven percent of the households surveyed expressed a high degree of receptivity to alternate ways of receiving health care. Alternatives were apparently considered to be primarily care by other than physicians, for example, physician assistants or nurse practitioners. Both categories of professionals have frequently been proposed as alternatives to physicians in areas where physicians are either in short supply or nonexistent. High-income whites expressed the greatest resistance to this proposed approach, while all blacks and low-income whites expressed the greatest degree of receptivity to this approach.

Sixty-three percent of all respondents indicated little if any frustration due to waiting for medical help. Blacks were most likely to express frustration and high-income whites were least likely.

The surveyors concluded:

> A clear majority of both household and high school respondents feel satisfied with their access to the health care delivery system, do not feel frustrated while waiting for medical services, and do not feel helpless when it comes to having adequate health care. The smaller group (from which 15 to 38 percent) who feel less satisfied, more frustrated, and more helpless, is likely to be composed of persons who are black and/or those who have annual incomes of under $5,000.

The surveyors did not note any differences between rural and urban people.

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[23] Deere, Runyan, and James K. Hoffmeister. "Health Attitudes and Practices in Arkansas." Cooperative Rural Health Education. D'Onofrio, Carl and Virginia Li Wang, editors. "Health Education Mimeographs," vol. 3, No. 1. Spring 1975. Baltimore, pp. 100–108.

A third survey providing some insight into the attitudes of health care consumers was conducted in Minnesota jointly by the Minnesota Hospital Association, the Minnesota State Medical Association, and the Minnesota Blue Cross-Blue Shield. Seventy-six percent of the persons surveyed thought their health care to be good or very good according to a report in the American Medical News of July 28, 1975. Six percent believed their care to be poor or very poor. When asked how health care could be improved, 30 percent said it did not need to be improved, 12 percent said it could be cheaper, 10 percent said insurance should pay more of the cost, and 8 percent said they believed that more physicians were needed.

The report noted that:

> The personal interview survey of 998 Minnesotans showed no significant differences in opinion related to age, sex, income, education, or residence area.

A preliminary report on a national survey of access to medical care conducted by the Center for Health Administration Studies of the University of Chicago has been issued by the Robert Wood Foundation in its "Special Report" (No. 1, 1978). The field work for this survey was conducted by the University's National Opinion Research Center between September 1975 and February 1976. It is based on a sample of 7,787 persons and is statistically representative of the U.S. population.

Initial analysis of the survey data indicates that 88 percent of the respondents could identify the availability of a regular source of care (a physician or a clinic). For farm residents, the percentage claiming a regular source of care was 93 percent; for rural southern blacks, 90 percent; for low-income persons, 86 percent; and for the elderly, 91 percent.

Seventy-six percent of the survey's respondents saw a physician in 1976. For farm residents, the percentage seeing a physician was 68 percent; for rural southern blacks, 65 percent; for low-income persons, 73 percent; and for the elderly, 79 percent.

The percentage of respondents under 65 having some form of health insurance in 1976 was 88 percent. For farm residents, this percentage was 83 percent; for rural southern blacks, 79 percent; and for low-income persons, 72 percent.

There is a consistent finding among these surveys, as well as others, that there is not a great amount of dissatisfaction with the performance of the health systems, with a substantial majority of the people surveyed satisfied with the system. Nevertheless, all surveys show a large number of persons who are not entirely satisfied with the performance of the health system, and many of these people live in rural areas.

E. THE HEALTH OF PERSONS IN RURAL AREAS

The consistent indicators of healthiness are age and income. Older people are sicker and poorer people are sicker.[24] [25] Rural areas have a disproportionate number of both older people and poorer people, as indicated earlier.

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[24] U.S. Congress. House. Committee on Agriculture. Subcommittee on Family Farms and Rural Development. "Federal Health Policies in Rural Areas in the United States." Washington, U.S. Government Printing Office, 1974. 174 pages. p. 19.

[25] Ibid., p. 16.

Injuries appear to occur at roughly the same rate in rural and urban areas,[26] although injuries to blue-collar workers are substantially higher in rural areas.[27] The National Safety Council, moreover, reported that the likelihood that death will result from an accident is four times greater in rural areas than in urban areas.[28] Dental care needs appear to diminish for more rural areas.[29] The number of days of restricted activity for chronic illness appear to be similar between urban and rural areas.[30] Infant and maternal mortality is slightly higher in rural areas.[31]

According to the National Center for Health Statistics, people in rural areas report fewer episodes of acute conditions, which are conditions lasting less than 3 months, and involving either medical care or restricted activity.

F. INTERPRETATION OF FINDINGS

Rural people have poorer access to health services because of substantial shortages of health workers, when compared to the number of such personnel in urban areas. The shortage of health workers is the probable major cause of the reduced use of dental and physician health services by rural people. Given the shortage of health workers in rural areas, however, there is a higher than expected use of services by rural people. This can probably be explained by the facts that rural practitioners tend to see more patients than their urban counterparts and that people travel from rural to urban areas to receive some portion of their care. By way of illustration, there are less than half of the ratio of physicians and dentists to population in rural areas compared to metropolitan areas, while the use of physician and dentist services is 20 and 30 percent less.

Most rural people feel they do have access to adequate health care, according to most surveys. There are substantial numbers, however, who feel they do not have adequate access to health care.

There are relatively more older and poor people in rural areas. Poor people and old people have more health problems. Both poorer and older rural need more health services. At the same time, many experts contend that the differential in the availability of health services probably has little impact on the health of people in rural areas. They note, for example that persons classified as middle or high income in rural areas have far fewer physicians and dentists available to them, and use far fewer health services, but probably have fewer health problems than their counterparts in metropolitan areas, including those outside the central cities.

The foregoing might be considered important, depending upon the objectives that changes in public policy and investment might attempt to achieve. It is obviously realistic to expect that an increase in the numbers of health workers will tend to equalize access to health services between rural and urban people. It is probably unrealistic, however, to expect that increases in health workers will substantially improve the health of rural pepole, particularly considering the present emphasis of health workers on curative as opposed to preventive health measures. Based on the limited information we have, it would appear that improved health would better be accomplished through improvements in housing, sanitation, income, and some alterations of personal lifestyles.

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[26] Rural Development Service. USDA. "Health Services in Rural America." Bulletin No. 362. Washington. p. 19.

[27] Ibid., p. 20.

[28] U.S. Congress. House. Committee on Agriculture. Subcommittee on Family Farms and Rural Development. "Federal Health Policies in Rural Areas in the United States." p. 19.

[29] Rural Development Service, op. cit., p. 14.

[30] Ibid., p. 17.

[31] Ibid.

Proposals To Improve the Health of and Health Services for Rural People

A. HEALTH SERVICES IN PERSPECTIVE

There is general agreement among health experts that health services provided by health professionals are not the principal determinants of healthiness.[32] Most of the improvements in our health have resulted from a higher standard of living accompanied by better nutrition, housing, and sanitation. Dramatic improvements have also resulted from the discovery of immunizing agents and of antibiotics and other drugs. Since the 1940's, there has been little change in the death rates per 1,000 persons in this country,[33] although there has been some change in rates of deaths from different causes such as for heart disease, and infant mortality, both of which have dropped over the last 10 to 15 years.[34]

As noted earlier, there is little difference in the health of rural people and urban people overall using the indicators applied by the National Center for Health Statistics. Differences that do exist probably are best explained by the differences in age and income levels between people who live in rural areas and those who live in urban areas. There are proportionally more older people and more poor people in rural areas than in urban areas, and there is a strong correlation between the rates of illness and death and age and income.[35]

There is also a correlation between education and health. For example, persons between ages 25 and 64 with less than 9 years of schooling lost approximately twice as many days of work than did persons of the same age group with 16 or more years of schooling.[36] Education and income are often used interchangeably as an explanation for health status, since the two are themselves positively correlated.

It would be an oversimplification to suggest that raising incomes and increasing the educational attainments of people in rural areas alone would improve their health. It would appear that there are clusters of characteristics associated with certain socioeconomic groups of people such as differences in housing, nutrition, sanitation, and health-related behavior which result in differences in levels of health.

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[32] Morison, Robert S. "Dying." Scientific America, vol. 229, No. 3, September 1973.

[33] Ibid., p. 58.

[34] Metropolitan Life Insurance Co. "Recent Trends in Mortality from Heart Disease." Statistical Bulletin. June 1975. Eisenberg, Barry S. and Phil Aherne. "Socioeconomic Issues of Health." AMA. Chicago. p. 111.

[35] Rural Development Service, op. cit., p. 3.

[36] Ibid., p. 4.

It was also noted earlier that there appears to be little correlation between the numbers of health workers available or the use of health services and the healthiness of people. Rural people have less access to health services, yet persons in similar socioeconomic groups in rural and urban areas show little differences in healthiness, using the indicators developed by the National Center for Health Statistics.

These findings have two major implications: (1) Improving the health of people in rural areas can best be achieved by improving their standard of living through improvements in such areas as education, employment, housing, and sanitation; and (2) increasing the numbers and quality of health services available to people in rural areas will probably have little impact on their health. The second implication deals only with the impact of health services on health, and does not consider increasing health services for other reasons, such as improving access.

Such matters as education, employment, housing, and sanitation, considered to be the major determinants of health, that is, improvements in these elements, are treated in other papers of this series. Mention of them in the health paper might be considered as an additional element for their consideration, and as a means for placing the improvement of health services for rural people in perspective.

B. MAKING HEALTH SERVICES AVAILABLE TO PEOPLE IN RURAL AREAS

The rationale for increasing health services in rural areas is fourfold: (1) It is an essential community service and essential to economic development; (2) improving health services creates jobs and generates income for rural communities; (3) it assures rural people of the same access to health services as other people in this country enjoy; and (4) it lessens the harmful impact of illness, and in some instances, helps to prevent it.

To increase the availability of health services for people in rural areas it will be necessary to: (a) Expand the numbers of health workers available to rural people, (b) improve the organization and administration of health service systems to make them more productive and acceptable to health care providers, and (c) enhance the ability of rural people to purchase health services.

1. Increasing the supply of health workers available to rural people

A number of options to expanding the supply of health workers have been proposed, some complementary, some mutually exclusive. The first option to increase the supply of physicians and other workers in rural areas is to increase the supply of health workers in the Nation overall, particularly physicians. It has been argued that this will increase the attractiveness of rural areas to health workers because there will be fewer attractive opportunities in urban areas.

The advantage of such an approach is that it would require minimal Federal involvement in effecting a redistribution of health services, since each community and physician would work out their own arrangements.

The disadvantage is the high probability that such an approach would not work until an extraordinary number of physicians became available for placement with no consensus as to what that number might be. Between 1960 and 1976, the supply of active physicians increased from 252,000 to 348,443, an increase of almost 40 percent. During that period, the number of physicians practicing in rural communities declined. Urban areas continue to absorb additional physicians as they are produced. Producing more physicians in the hope some may become available for rural areas would be extraordinarily expensive and arguably wasteful, with no assurance that a sufficient number of physicians would practice in rural areas.

The second option available to increase the supply of physicians and other health workers is to increase the incentives to practice in rural areas. Such incentives might include subsidies in the form of grants, loans, or tax relief to start a practice in a rural community, a guaranteed income for a period of years and assurance of higher incomes by paying more for services or other forms of subsidies.

There is little information to support the contention that any of the above incentives would be effective in attracting physicians in any large number to rural areas. Some of the incentives described above have been tried on a limited scale with mixed success. All evaluations are anecdotal, and an extensive analysis has not been made of any of them. It is probably reasonable to conclude that such incentives would be supportive of other more effective measures, and may add to the attractiveness of practicing in rural areas. The effectiveness of incentives may depend upon the precise character of the incentive, for example, how much of a guaranteed income and how much tax relief. According to reports from Canada, some provinces are finding doctors for rural areas by offering attractive incomes. A county in New York State claims to have been successful in recruiting doctors by guaranteeing them $50,000 a year for their first 2 years of practice.

A third option relates to the modification of the student selection process and the educational process for physicians and other health workers. This is an area where a substantial amount of research has been done and where specific policy directions have been recommended. In one analysis of factors influencing the location of primary care physicians by Cooper et al.,[37] it was found that the place where the physician and his spouse were raised, and opportunities for regular contact with medical schools and medical centers were important in influencing the physician's choice of practice location.

The authors interpreted the data in the following way:

> The data confirm the significance of place of rearing of the physician and illustrate the significance of the wife's place of rearing in predicting practice location. Also, the medical school and medical center show up prominently in both the physician's list of factors ranked important and in the two regressional analyses, suggesting that contact with the medical center is a positive attraction to a location.

The authors suggest the following programs be tested:

(1) Programs designed to bring more rural students into medical school, especially if they have rural spouses.

(2) Programs in rural areas to provide more contact with medical schools and medical centers.

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[37] Cooper, James K., et al. "Rural and Urban Practice: Factors Influencing the Location Decision of Primary Care Physicians." Inquiry, vol. XII, March 1975: pp. 18–24.

A second study of locational decisions of physicians by Yett and Sloan[38] found that physicians have a higher propensity to locate in States where their previous level of attachment (i.e., the "events" birth, medical school, internship, and residency) is strongest and most recent.[39]

The authors of the study proposed the following:

(1) That public medical schools discriminate in favor of State residents;

(2) Financial aid to in-State citizens;

(3) Expansion of medical schools, both public and private, in the State;

(4) Making residencies and interships more attractive to in-State medical school students;

(5) Subsidizing hospitals affiliated with medical schools to induce expansion of intern and residency programs.

The two studies appear to agree that attention should be directed to the selection of medical students who are likely to return to shortage areas. Cooper et al. would also include in the selection criteria the fact that the spouse be from a rural area.

Yett and Sloan propose that the medical schools be expanded, that in-State interships and residencies be increased, and that residencies and internships should be made more attractive to in-State medical school graduates. Although Cooper and his associates did not make this recommendation, they did find that almost half of the medical school graduates make their decision concerning their practice location during their internship, residency, or other house staff training, which might raise questions of the merit of increasing medical school enrollment.

A fourth option for adding to the amount of health workers in rural areas relates to the subsidization of health professional students' education in return for their agreement to practice in underserved, including rural underserved, areas. Such subsidies may take either the form of grants or loans.

Loan programs have been operated by States and the Federal Government for some time, and some loan programs have been developed by local communities and medical societies. In general, loan programs forgiving repayment in return for service in rural areas have not been effective, with most students electing to pay back the loans rather than serve in a physician shortage area.

Large-scale scholarship programs operated by the Federal Government are relatively new and have not been evaluated. There has, however, been a substantial amount of interest in receiving scholarships in return for service in underserved areas. For example, there were over 4,150 new applications for National Health Service Corps scholarships for the 1978–79 school year. A total of 3,346 individuals received awards. In addition, 1,904 continuing awards were made.[40] This scholarship program includes the condition that students serve 1 year in an underserved area for each year of scholarship assistance.

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[38] Yett, Donald E. and Frank A. Sloan. "Migration Patterns of Recent Medical School Graduates." Inquiry, vol. XI, June 1974 : pp. 125–142.

[39] Conversation with Dr. Ed Martin, Director, National Health Service Corps, Aug. 27, 1975.

[40] Conversation with Bureau of Health Manpower official, October 1978.

The advantage of this approach appears to be the widespread interest among medical students in this form of assistance making it possible to recruit the large numbers of physicians to fill deficits in rural areas. Yet to be evaluated is whether such an approach will be sufficient to produce a large enough supply of physicians.

A fifth option would be to increase the number of health workers who could perform functions traditionally done by physicians. These functions include examinations, history taking, care for the chronically ill, well-child care, and prenatal care under the supervision of physicians. Analysis of the performance of such health workers has been generally favorable both in terms of quality and patient acceptance. The Social Security Administration is currently evaluating the performance of such health personnel.

Commentary on options

At this point, the most effective short-term option appears to be the scholarship program, where scholarships are offered in return for an agreement from the student that he or she will practice in an underserved area for an agreed-upon period of time. By itself, this option raises additional issues relating to how and where, at what rate and in what numbers such persons should be placed. The major scholarship program currently in existence is the National Health Service Corps scholarship program. In the Corps, a scholarship recipient may fulfill his service obligation as a commissioned officer in the Regular or Reserve Corps of the Public Health Service or as a civilian member of the Corps. In addition, an individual, at his discretion may serve in private practice in a designated health manpower shortage area which has the priority for the assignment of Corps members and which has a financial base sufficient to sustain the practice.[41]

Based on the limited information available, efforts to enroll students from rural areas in the expectation they will serve in rural areas has merit. It is an important issue when considered alongside the scholarship program, since one of the goals of such programs should be the retention of physicians after they have served their committed time.

Making the resources of health science schools and medical centers more available to rural practitioners also would appear to have merit, based on the limited information we have available, including the survey conducted by Cooper et al. referred to earlier.

Incentives such as tax relief, guaranteed incomes, and fees on parity with fees for physicians in metropolitan areas would appear attractive, as mentioned earlier, if considered along with other options, particularly scholarship programs.

It is clear, too, that some features of certain options could be tied together with features of other options. For example, tax relief or guaranteed incomes might be considered together with rural health science centers.

Given the lack of consensus on the numbers of physicians needed for rural areas, it would appear reasonable to proceed with some degree of caution in expanding the numbers of scholarships provided. Placement of physicians and other health workers requires considerable analysis and community effort to assure an acceptable experience for both the community and the providers. One policy option might be to proceed incrementally, expanding the number of scholarships by, for example, 1,000 a year, until we obtain a clearer picture of how many health workers can be usefully placed.

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[41] Public Health Service Act. Secs. 331-338.

A critical issue relating to health manpower for rural areas concerns the degree to which physician extenders should and will become participants in providing care in rural areas. Given the cost and productivity implications of using physician extenders, it is clear that they must be a major consideration in the development of any plan to provide health services to people in rural areas.

In 1977, Congress considered legislation proposing to improve the accessibility of health care services in rural areas. Many isolated rural communities which have not been able to attract or retain a physician have established clinics which do not follow the traditional model of physician delivery of medical services. These rural clinics are staffed, not by physicians, but by specially trained nurse practitioners and physician assistants who are trained to provide primary medical care services traditionally performed only by physicians. Although there is physician supervision of the services provided by primary care nurse practitioners and physician assistants, it is indirect rather than immediate.

As enacted, the Rural Health Clinic Services Act of 1977, Public Law 95–210, extended medicare and medicaid reimbursement to services provided by nurse practitioners and physician assistants in rural health clinics. Unlike clinics where there is a physician present full time, these rural health clinics had not been eligible prior to this legislation for medicare reimbursement. In the past, services provided by nonphysicians to medicare or medicaid beneficiaries have either been paid for out-of-pocket by the beneficiary, picked up under a grant, or written off by the clinic as bad debts. The enacted legislation is intended, therefore, to enhance the financial stability of these clinics as well as to make health care services more accessible to rural areas.

2. The organization of health services in rural areas

At issue regarding health services for rural people is the matter of how they should be organized to provide for the best use of scarce resources and provide the most attractive setting for health services providers. In view of the difficulty of attracting providers to rural areas, particularly physicians, the latter is very important.

Four organizational approaches to health services delivery for rural areas are included for consideration:

(1) Medical group practice;
(2) Emergency medical services;
(3) The dispersion of health science teaching and education into regional or area health education centers; and
(4) Regionalization.

(*a*) *Group practice*

The Council on Rural Health of the American Medical Association has endorsed "the establishment of group practices as one potential means of attracting physicians to rural communities." They note that such a move "is not only important in attracting a physician, but it is apparently important in retaining him."[42]

In the survey of physicians by Cooper et al., mentioned earlier, primary care physicians considered practice in a partnership or group practice as a highly desirable way to practice medicine.[43]

Based on the limited information available on medical group practice in rural areas that has been developed by Dr. Milton Roemer of the University of California at Los Angeles, and also data prepared for the Congressional Research Service by the American Group Practice Association, group practice appears to be the most successful medical organizational form in rural areas so far as attracting new physicians is concerned.[44]

In their document entitled "A Proposed Organizational Structure for Providing Health Services and Medical Care in the State of Iowa," MacQueen and Eldridge proposed the development of primary care group practices as the central unit in a regionalized health system for the State.[45]

As noted in the "Report on Rural Health Services" prepared by CRS for the House Agriculture Committee's Subcommittee on Family Farms and Rural Development, financial or other support for group practice will not by itself cause a substantial increase of physicians in rural areas.[46] Such support would, however, based on the opinion of a large number of health care experts, provide support for a method of medical practice which would make rural practice more attractive to physicians as well as other health professionals.

(b) *Emergency medical service systems*

Because of the widely scattered populations in rural areas, and the scarcity of health personnel, well-developed emergency medical service systems are essential. Deaths from accidents are far higher in rural areas than in urban areas.

The development of EMS systems must encompass large enough areas and include sufficient people to assure that all the necessary components of a system can be contained and supported within the area, including well-staffed and equipped transport systems and emergency treatment centers. The EMS program has established 304 such systems for the Nation.

(c) *The dispersion of education and training activities of health science teaching centers*

As noted in the survey findings of Cooper et al., and supported by other findings, one of the felt needs of physicians is a continuing relation with their peers and another is to keep abreast of the changes in the field of medicine. Rural physicians, by nature of their isolation, have been frequently denied both.

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[42] Bible, Bond E. "The Role of the AMA's Council on Rural Health in Rural Health Development." "Cooperative Rural Health Education." D'Onofrio, Carol and Virginia Li Wang, editors. "Health Education Monographs." Vol. 3. No. 1. Spring 1975. P. 16.

[43] Cooper, James K. et al. "Rural and Urban Practice: Factors Influencing the Location Decision of Primary Care Physicians." Inquiry. Vol. XII, March 1975: pp. 18–24.

[44] U.S. Congress. House. Agriculture Committee. Subcommittee on Family Farms and Rural Development. "Federal Health Policies in Rural Areas." Washington, U.S. Government Printing Office, 174 pages. Pp. 138–146.

[45] MacQueen, M.D. and Eber Eldridge, Ph. D. "A Proposed Organizational Structure for Providing Health Services and Medical Care in the State of Iowa." Developed in the technical and research section of Iowa State Services for Crippled Children. Iowa City, Iowa. March 1973. 199 pages.

[46] U.S. Congress. House. Agriculture Committee. Subcommittee on Family Farms and Rural Development. "Federal Health Policies in Rural Areas." Washington, U.S. Government Printing Office, 174 pages, p. 146.

Many experts, again supported by some survey and research findings, contend that exposure of medical students and postgraduate physicians to rural practice is essential to attracting them to rural practice and better preparing them for rural practice.

Both of these findings and contentions point to the need for health science teaching center involvement in rural areas. Such involvement can take many forms.

One of the most accepted approaches is the concept of area health education centers, which use community facilities, usually community hospitals, as the focus of teaching. Both community practitioners and health science teaching centers faculty participate in a number of programs that are in effect at this time. The State of North Carolina, for example, allotted $28 million to build additional facilities throughout the State of North Carolina for this purpose. These additional facilities were closely associated with community hospitals throughout the State. Many large group practices in rural areas, such as the Geisinger Clinic in Danville, Pa., and the Trover Clinic in Madisonville, Ky., have had active affiliations with medical schools for many years.

In addition to area health education centers, preceptor programs have been established using rural practitioners. Part of the training of family practice or other primary care residencies has been with rural practitioners. Rural practitioners are used as guest lecturers.

(d) Regionalization

The regionalization of health services has been proposed by numerous persons as a means of "rationalizing" our health care system. Regionalization might be viewed as a process of making the right amount of health resources available in the right places within a geographical area, to provide for the appropriate linkages of such resources, and developing mechanisms whereby such resources can be properly allocated, supported, and coordinated. By defining a region's population, it is possible, for example, to project requirements for personnel, equipment, facilities, and dollars.

In their report, cited earlier, MacQueen and Eldridge outlined the following major components of a health system:

(1) Primary care centers located near to where people live;

(2) Secondary care centers, including hospitals which would provide care of a more complex nature to a wider geographical area; and

(3) The medical center and university which would provide the most complex and infrequent care as well as training students and practitioners.

All of these components would be spatially distributed to assure coverage of a region. There are few areas in this country where highly developed regional health care systems exist today, although certain hospital systems have some of the features of such an arrangement.

Proponents cite several advantages to such a system:

(1) It offers certain cost advantages because it provides for a fuller and more appropriate use of resources, and can benefit from economies of scale; and

(2) It offers quality advantages because its size makes more possible the inclusion of a system of quality control.

Both of these alleged advantages do exist where they have been applied on a limited scale. For example, large health maintenance organizations and hospital chains save large amounts of money by group purchasing. It has been found that certain complex procedures such as open heart surgery are done best where the physicians are highly skilled and kept busy. Death rates for open heart surgery are considerably higher where the procedure is done infrequently by hospitals.

A third reason cited by proponents is that a regionalized system is apt to be more attractive to physicians, because it can use their skills better, and because it would provide for contact between rural physicians and medical centers, for which physicians feel a strong need.

Finally, as alluded to earlier, regionalization refers to a finite piece of geography and a finite population. With limits established as to the size of responsibility, institutions working together can define health services and resource requirements, and can, if so inclined and with appropriate external assistance, develop effective means of developing and utilizing the necessary resources.

3. *Options for improving the organization of health services for rural areas*

(a) *Group practice*

(1) The modification of present IRS rulings which offer favorable tax advantages for professional corporations. Currently, any physician or group of physicians may incorporate to receive such advantages. It is questionable, however, that professional corporations composed of specialists of the same specialty offer any special advantage to the public. Consideration might be given to developing more favorable tax benefits for multispecialty groups of physicians who provide primary care in rural areas as their principal activity.

(2) Low- or no-interest loans or loan guarantees or grants[47] available to physicians, communities, hospitals, or other appropriate groups to build and equip health centers to house group practices in rural areas. Priority should be considered for applicants who are physicians, or have a commitment from one or more physicians to provide care in the facility.[48]

(3) Assignment of physicians and other professionals as groups or teams under Federal scholarship/service programs.

(4) Federal guarantees to physicians and other professionals of the availability of medical malpractice insurance at reasonable costs.

(5) Income guarantees for physicians engaged in rural group practice for a set period of time, through special payments or tax relief.

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[47] Presently, under the facilities construction programs operated by USDHEW, loans and loan guarantees are limited to public and nonprofit entities.

[48] One of the weaknesses of the Sears Foundation program, for example, was the assumption that if a community built an attractive physician facility, physicians would be attracted. This did not happen in most instances and the program was discontinued.

(b) Emergency medical service systems

(1) Expansion of present Federal support program authorized under the Emergency Medical Services Systems Act, Public Law 93-154.

(2) A program of loans, interest subsidies, and loan guarantees for the development and expansion of emergency medical services systems with provisions for repayment by participating health institutions by allowing for third-party reimbursement for such costs.

(3) A combined grant and loan program.

Given the present vagaries of what is meant by regionalization, promotion of regionalization on a large scale would appear to be inappropriate. It would appear sufficiently promising, however, that the testing should be made of a model similar to that suggested by MacQueen and Eldridge.

The National Health Planning and Resources Development Act (Public Law 93-641) implicitly recognizes the need for the development of regional systems for the allocation of health care services through health systems agencies. To accomplish this objective, the administration has developed guidelines on the allocation of health resources, such as hospital beds, as appropriate targets for these agencies.

The administration, in addition, might seek to reinforce efforts at improving regional systems by making its third-party reimbursement policies compatible with desirable changes, and encouraging other third-party payers to do the same. This might apply, as noted earlier, to emergency medical service systems.

(c) Decentralization of health professional training

The Department of Health, Education, and Welfare is presently financing the development of a number of health education centers, as well as other programs to expose students and postgraduate physicians to rural practice, and conversely, to involve rural practitioners in medical education.

At the present time, there is no evidence that medical school efforts, in the absence of scholarships or other methods of requiring physicians to practice in rural areas, will attract enough physicians to rural areas. Decentralization efforts would appear to be more important as a means of better preparing physicians for practice in rural areas, and retaining them. It should be considered as a complementary program to scholarships and other programs aimed at placing physicians.

In August 1978, GAO issued a report which evaluated one decentralized medical education program—the WAMI program in Washington, Alaska, Montana, and Idaho. This program was evaluated to determine the extent to which it is meeting program objectives of exposing students and faculty to medically underserved rural areas, of improving the quality of care available in these areas, and increasing the numbers of physicians practicing in rural areas. GAO found the program successful on all these accounts. Evaluations of other decentralized medical education programs might be undertaken to determine their effectiveness in other parts of the country.

(4) *Financing health care services for rural people*

(*a*) *The problem*

The problems rural people have in buying adequate health care are documented in an earlier section of this paper.

(*b*) *Options to improve the ability of rural people to purchase adequate health care*

The following options are proposed in the absence of national health insurance, although such options could be included in national health insurance proposals.

Like improving health, improving the purchasing power of people in rural areas can be affected by the health industry in only a small way. In the absence of national health insurance, the principal means of improving the ability of people in rural areas to purchase health care would be through increases in employment and individual incomes. However, improvements could be made by making the administration of private health insurance, particularly as it relates to selling it, less expensive. The high cost of individual commercial health insurance policies is discussed in an earlier section of this paper. Such an action would enable individual policyholders either to purchase the same coverage they now have for less or to obtain more health coverage for the dollars currently expended. In addition, individual policyholders with more illness than usual pay higher premiums or have more limited coverage. Additional costs incurred because people are sicker could be distributed more evenly among all insured persons.

One possible approach would be to require health insurers to return at least 90 percent of the premiums collected in benefits for individual policyholders. Although such a policy might cause temporary problems with the availability of health insurance, it might also force insurers to work out appropriate procedures which could assure their continuation as health insurers of individual policyholders.

In addition, it might be desirable to require insurers to use community rating for all those insured excluding those covered by medicare and medicaid.[49] Persons who are sicker now have to pay more unless they belong to a large group, which are usually comprised of employees and their families. In addition, some health experts believe that medical conditions existing prior to coverage should have to be covered; and that insurers should be required to cover all applicants for health insurance. Pooling arrangements might be considered for this purpose. Given the large number of individual policyholders in rural areas, all of the above proposals relating to individual policies would benefit large numbers of rural people.

Such an approach might also involve the Federal, State, and local governments and might also include variations other than those discussed above. For example, insurers might be required to community rate their pure premiums, that is, those related to health care costs, but to handle administrative costs based on the kinds of health insurance markets.

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[49] Community rating distributes total projected medical costs among all those insured, resulting in similar insurance premiums, whereas experience rating distributes medical costs based on the projected medical costs of individuals and groups. The latter mean sicker people pay higher insurance premiums. Medicare and medicaid are currently experience rated.

C. MAJOR ISSUES CONFRONTING CONGRESS RELATING TO HEALTH SERVICES FOR RURAL PEOPLE

In considering alternative approaches to providing more and better health services to rural people, a number of major issues must be dealt with which might be considered as barriers or constraints to effecting improvements.

1. Reimbursement of providers in rural areas

Mr. Glenn Wilson, associate dean for community health services, University of North Carolina School of Medicine, in his testimony before the House Agriculture Subcommittee on Family Farms and Rural Development in the fall of 1974 noted:

> There is an anomalous situation which we believe deserves attention. There is a great and increasing demand for public action to bring about a better distribution of health personnel, and there is a clearly demonstrated need. The Federal Government through medicare and medicaid is each year paying significant sums of money for physician services across the country. It is difficult to reconcile current physician payment system with the need for more physicians in rural America. The same physicians providing service to the same patient under current medicare and medicaid payment guidelines will probably receive twice as much for providing the service in a city as compared to a rural area. If we are indeed concerned with attracting physicians to the smaller communities of America, this inequitable payment mechanism for identical service does not appear consistent with the public policy of improving the distribution of personnel.

The above position might be considered to apply equally to dentists. Physicians and dentists in rural areas work slightly longer hours, see more patients, in return for slightly less money.

These data are important when considered alongside of efforts to attract more physicians and dentists to rural areas. Such efforts would conceivably have impact upon the workload of existing physicians and dentists and, therefore, on their incomes. If fee differentials remained relatively constant between urban and rural areas as the number of physicians and dentists were increased, the impact would be to widen the income disparity between physicians and dentists in urban and rural areas. If there is a serious attempt to attract physicians and dentists to rural areas, and if, as is assumed, income is a factor in locating physician and dental practice, some adjustment in fees for rural physicians and dentists would appear to be necessary.

Differentials between rural and urban areas also exist for hospitals. The following tables were developed by the Social Security Administration based on estimated costs of SMSA and non-SMSA hospitals, and were developed as a basis for paying hospitals:[50]

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[50] SSA regulations entitled "Hospital Costs Under Health Insurance Program." Schedule of "Limits for Cost Reporting Periods Beginning on or after Oct. 1, 1978." Federal Register (43 F.R. 43558). Sept. 26, 1978.

SCHEDULE OF LIMITS ON HOSPITAL INPATIENT GENERAL ROUTINE SERVICE PER DAY COSTS FOR HOSPITALS WITH COST-REPORTING PERIODS BEGINNING ON OR AFTER OCT. 1, 1978

[Bed size]

SMSA group [1]	Less than 100	100 to 404	405 to 684	685 and above
Hospitals located within SMSA's (metropolitan):				
I [2]	$157	$154	$172	$214
II	128	137	148	161
III	121	119	120	120
IV	113	113	111	111
V	101	101	126	126

State group [1]	Less than 100	100 to 169	197 and above
Hospitals located outside SMSA's (nonmetropolitan):			
I [3]	$113	$124	$124
II [4]	143	128	113
III	111	116	112
IV	110	107	109
V	90	90	91

[1] Grouping represent areas designated according to per capita incomes within each area.

[2] Limits apply to all SMSA's except Anchorage, Alaska, and Honolulu, Hawaii, where cost-of-living adjustment (25 percent Anchorage, Alaska; 17.5 percent Honolulu, Hawaii) was made. The limits for these areas are as follows:

	Less than 100	100 to 404	405 to 684	685 and above
Anchorage	$196	$192	$214	$268
Honolulu	184	180	201	252

[3] Limits apply to all group I States except Alaska where cost of living adjustment (25 percent) was made, limits for Alaska are: Less than 100—$141, 100 to 169—$155, 170 and above—$155.

[4] Applies to all group II States except Hawaii where cost of living adjustment (12.5 percent) was made, limits for Hawaii are: Less than 100—$161, 100 to 169—$144, 170 and above—$127.

Although these differentials in payments to providers may be a deterrent to the location of providers in rural areas, any changes in pricing would have to be carefully considered in view of the economic characteristics of rural areas. The cost of health care providers' operations may justify some differentials in cost. In addition, the pricing of medical service in rural communities reflects, in part, the purchasing power of rural people. Raising prices without considering all the ramifications of such increases may solve some problems and create others equally or more severe.

2. *Quality of health services in rural areas*

Quality is difficult to measure. Most frequently it is measured by the qualifications of personnel performing certain procedures, the availability of certain types of equipment, and the frequency in which certain quality control checks are performed. It is sometimes related to outcomes such as deaths and other complications arising from certain medical procedures. From the evidence that is available, many rural hospitals are found wanting.

The Social Security Administration has been frequently criticized for imposing unrealistic standards on rural hospitals which they cannot reasonably meet. This has prompted calls for revisions of these standards to accommodate the unique requirements of rural hospitals.

The criticisms of the Social Security Administration may be valid, particularly in cases where the relationship between the qualty of care and the standards imposed are tenuous, for example, the requirements for 24-hour coverage by registered nurses rather than licensed practical nurses.

In defense of the Social Security Administration's policy is the documented evidence, albeit limited, that there are problems with the quality of care provided in some rural hospitals. In addition, many of the rural hospitals have apparently upgraded themselves to meet SSA standards of participation in medicare, since the number of hospitals not meeting the standards declined from over 600 when the program first began to only 36 such hospitals by February 1978.[51] Since the inception of the medicare program, there has been considerable interest in provding some relief from the medicare standards for small rural hospitals. Legislation was enacted in both 1971 and 1975 enabling rural hospitals in isolated areas to be relieved of certain nurse staffing requirements, and administrative relief has also been granted to such hospitals. Despite these steps, there has been some support in the Congress to develop special standards for small rural hospitals in recognition of the unique problems these hospitals face in providing hospital care.

In addition to the development of special standards for small rural hospitals, it may be appropriate to consider the establishment of institutional relationships between small rural hospitals and larger medical centers with well-developed systems for care, in order to assure the necessary backup is available to such hospitals.

3. *Specialization of medical practice*

This Nation has a critical shortage of primary care physicians. It probably has a surplus of specialists. Whereas it is estimated that 60 percent of our physicians should be providing primary care, and 40 percent should be specialists, the reverse is true today. Primary care physicians are essential to rural areas because of the light population density of these areas. Primary care physicians handle approximately 80 percent of the health problems of people, and, therefore, can be reasonably close to where rural people live and still make an adequate income. Specialists on the other hand require a much greater population to provide an adequate income and, hence, may be many miles away from a large number of rural people in their service area. For rural areas to receive more accessible health care, our training facilities will have to produce more primary care physicians who will practice in rural communities.

A critical issue in dealing with health manpower shortages in rural areas is the reaching of a consensus on the magnitude and nature of the shortage. Although both the administration and Congress have expressed concern about shortages in rural areas, neither Congress nor the administration, separately or jointly, have reached any conclusions regarding the magnitude of the shortage. Figures of shortages have ranged between 1,800 physicians and 30,000 physicians. It is obvious that there would be a significant difference in the approach used to correct a shortage of 1,800 physicians and the approach used to correct a shortage of 30,000. It would appear, therefore, that an essential preliminary step to the development of a realistic public policy on health manpower would be to reach some agreement or acceptance among the administration and Congress as to the magnitude of the manpower shortage. As noted earlier, the use of physician extenders also has important implications when projecting the need for physicians and dentists.

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[51] Data provided by medicare official. Oct. 2, 1978.

4. The use of federally operated facilities to provide care to rural people

The Veterans' Administration health program has over $5.5 billion budget,[52] employs over 170,000 people, operates 172 hospitals, 92 nursing homes, 16 domiciliaries, and 228 outpatient clinics. Many of the facilities operated by the Veterans' Administration are located in or near rural areas.[53]

At the present time, the VA health program cannot be viewed as a community resource beyond the veterans and the small number of dependents who might qualify for services. An important issue might be whether such facilities might be opened to total communities in areas where this might be the most effective approach for both veterans, their dependents, and the total community.

In some ways, although in a more limited way, the Indian Health Service might be viewed as a potential resource for rural people who are not now eligible for services at IHS facilities. The Indian Health Service currently employs approximately 9,727 persons, and operates 51 hospitals, 99 health centers (including 23 school health centers), and over 300 health stations. In addition, IHS is a large purchaser of health services, in particular from short-term and special hospitals. Access to IHS facilities generally would be more difficult for rural people because most IHS facilities are located on reservations.

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[52] 1979 estimate.
[53] "VA Budget Justification—Fiscal Year 1979."

EDUCATIONAL PROBLEMS AND FEDERAL ALTERNATIVES[1]

Introduction and Summary

This paper provides a discussion of educational problems in elementary and secondary schools in rural areas, and suggests various kinds of Federal alternatives that might alleviate these problems, at the same time pointing out some of the key issues which may help guide possible congressional efforts in improving the quality of rural education.

A. RURAL EDUCATIONAL PROBLEMS

Because education may be judged from many different perspectives, the quality or success of rural education may be difficult to determine; nevertheless, comparisons can be made with regard to certain aspects of educational opportunity in rural areas.

School enrollment figures show that rural children attend school in much the same proportions that other children do, with the exception that attendance is much lower for kindergarten and prekindergarten classes.

School finance data indicate that rural school expenditures per pupil are less than elsewhere. Lower teacher salaries seem to account for most of the difference, although pupil transportation expenses are actually higher for rural schools. Rural areas obtain proportionally more of their educational revenues from Federal and State sources, and less from local sources, possibly because property values are lower in rural areas.

Educational attainment—years of school completed—of the adult rural population is somewhat less than the attainment of people elsewhere, although this does not necessarily reflect adversely on current rural school systems. Educational performance of most rural students does not differ significantly from national averages. Performances were lower, however, for especially poor rural areas, but they were not found to be as low as those in especially poor inner-city areas.

Staffing patterns of rural schools are not much different from national averages, but rural education appears to be at a slight advantage in having smaller class sizes and at a slight disadvantage in having fewer specialized staff.

Because of the preponderance of smaller school districts in rural areas, the organization of rural education is considerably different and probably at a distinct disadvantage when compared to other localities. School districts enrolling fewer than 2,500 pupils are predominantly rural, and probably have educational problems unique to themselves.

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[1] By Paul M. Irwin, analyst in education, Education and Public Welfare Division, Congressional Research Service, the Library of Congress.

B. FEDERAL ALTERNATIVES AND KEY ISSUES

Federal educational programs currently exist to assist many recognized areas of educational need, although the level of funding is less than 10 percent of total elementary and secondary educational revenues. Rural schools receive assistance from most, if not all, of these Federal programs These programs could be continued and supported at current funding levels.

Federal educational funds could be redistributed within current programs to provide additional assistance to rural areas, to increase research and development projects about rural educational problems, or to allow greater flexibility in the use of Federal funds to meet locally determined needs through the consolidation of Federal programs.

Requirements could be added to existing Federal programs to encourage or assure greater equity in State systems of school finance, so that poorer school districts would be less dependent on locally taxable wealth in providing a quality education.

New Federal programs could be designed to meet possible rural needs not already addressed by current programs, including pupil transportation assistance, sparse population assistance, school construction, and general aid to education. These programs could be limited to rural education or they might be made available to assist any school district with demonstrable need.

The level of Federal financial assistance could be decreased or increased to match any combination of suggested alternatives. Various funding changes are suggested which range from a maximum decrease of almost $8 billion to a possible increase of nearly $20 billion above the current level of Federal outlays for elementary and secondary education.

The key issues to be faced in examining these proposals concern the proper role of the Federal Government in providing assistance to public elementary and secondary education; whether the assistance should be only financial or include standards of quality and performance of rural education; and whether the level of Federal aid for education is consistent with national priorities for Federal assistance in all areas of governmental services. Finally, there is the question of whether rural educational needs justify special treatment beyond the assistance currently provided by Federal programs.

RURAL EDUCATIONAL PROBLEMS

A. PERSPECTIVE

In this part of the paper, an analysis of rural educational problems will be made, comparing basic educational variables in rural localities with national averages. Rural differences to be found in enrollment, finance, attainment, class size, and school district organization will be examined to determine whether they indicate the existence of problems, and if so, their possible extent and severity. Solutions to educational problems are not always a straight forward matter; to the extent that rural education is different from other kinds of education, general solutions may not be applicable at all. For example, a minimum school district size of 20,000 pupils may be effective for many cities but of no real utility for rural communities. Boarding schools may offer the most efficient educational solution for sparsely populated areas but they may be harmful to the maintenance of family and community relations.

The comparisons suggested above may be categorized as equal opportunity of access to education; for the most part they do not directly address questions of quality or success of an education. Because educational quality appears to be especially sensitive to such variables as the unique relationship between teacher and pupil and the quality of school management, few general standards exist which can specify the "best" method of teaching, administering, or financing education. Likewise, there appears to be no consensus about the objectives of education although many objectives have been put forward, including: An increase in knowledge, the development of citizenship, an increase in lifetime earnings, the enhancement of cultural values, an increase in cognitive skills, the acquisition of work force credentials, and the preparation for additional education. Without the objectives specified, ranked, and somehow measured, it will be difficult to ascertain the quality or success of any educational endeavor. However, the following analysis of educational opportunity in rural areas can be a part of that attempt.

A general statistical examination of rural education can fail to discern several kinds of problems, two of which will be briefly noted. First, low levels of educational attainment—whether at the individual or at the community level—are often associated with unemployment or underemployment, low levels of income, poor health and medical care facilities, and substandard housing.[2] When these other problems occur simultaneously with low levels of education, the resultant degree of social and economic disadvantage may become far more serious than if the problems had occurred separately. It can be assumed that these problems do occur together in parts of rural America, just as they certainly do in other parts of the country.

Second, nonstatistical studies have been made by various scholars about educational problems in rural areas or small communities. Most of these studies, however, lack a national scope of reference, but rather focus on specific problems: For example, education in a particular migrant labor camp or on a specific Indian reservation. These studies can be informative about the kinds of problems that exist in individual rural localities even if they cannot indicate the extent of the problems nationally. The determination of the extent of these problems will probably have to await the undertaking of systematic national studies.

In the past 10 years, the role of the Federal Government in public elementary and secondary education has been that of providing financial assistance to increase opportunity in a number of educational areas. During these years, Federal assistance has been maintained at a level of 8 to 10 percent of total revenues from Federal, State, and local sources; in prior years, Federal aid seldom reached half that proportion. The current distribution of sources of funds continues to reflect the longstanding tradition of State and local control and financing of public education in this country (table A-1).

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[2] A discussion of research findings about the relation between education and other social and economic variables may be found in Nollen, Stanley D. "The Economics of Education: Research—Results and Needs." Teachers College Record, vol. 77(1), September 1975: pp. 51–77.

The statistical examination of rural education will usually be confined to "nonmetropolitan areas" because comparable data are not regularly available for any other definition of rurality. "Standard metropolitan statistical areas" is a term formally defined by the U.S. Office of Management and Budget; areas outside of standard metropolitan statistical areas constitute "nonmetropolitan areas," and as such may include cities of up to but less than 50,000 inhabitants.[3] Although cities approaching that size do not always fit popular concepts of rural localities, the term so defined is the closest to theoretical notions of rurality for which data are regularly collected. In the following analysis, the term "rural" will refer in a general way to the country as opposed to the city or urban areas. The term "nonmetropolitan" will be used whenever reference is made to the statistical definition.

TABLE A-1.—ESTIMATED EXPENDITURES OF PUBLIC ELEMENTARY AND SECONDARY SCHOOLS BY SOURCE OF FUNDS IN 1977-78, UNITED STATES SUMMARY

Source	Amount (in billions)	Percent of total
Total expenditures from all sources	$82.7	100.0
Federal	7.8	9.4
State	37.1	44.9
Local	37.7	44.6
All other	.1	.1

Source: U.S. Department of Health, Education, and Welfare, National Center for Education Statistics, Digest of Education Statistics, 1977-78, Washington (NCES 78-402), 1978, table 18.

B. POPULATION AND ENROLLMENT

Census data show that in 1970 there is apparently no serious rural educational problem with regard to school enrollment; the nonmetropolitan ratio of children to total population is about the same as elsewhere, and school enrollment is approximately proportional to population (table B-1).

The 1976 survey of income and education shows that nearly the same proportion of total population lives in nonmetropolitan areas as it did in 1970 (table B-2). These data also show, however, that the incidence of poverty in nonmetropolitan areas is higher than elsewhere—nearly 40 percent of all poverty is found in such areas. Since poverty is often considered to contribute to educational problems, nonmetropolitan areas may be at a disadvantage because of this condition.

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[3] U.S. Office of Management and Budget, "Standard Metropolitan Statistical Areas," 1975 Revised Edition, Washington, 1975. In particular, "nonmetropolitan areas" refers to all areas not included within standard metropolitan statistical areas (SMSA) as defined by the Office of Management and Budget. Except in the New England States where towns and cities are used instead of counties, an SMSA is a county or group of contiguous counties which contains at least 1 city of 50,000 inhabitants or more, or "twin cities" with a combined population of at least 50,000. Contiguous counties are also included if they meet certain criteria of social and economic integration. The population living within an SMSA is designated as metropolitan; those living outside of SMSA's constitute the nonmetropolitan population.

One study has concluded that there is a rural disadvantage in the higher percentage of rural children (5.3 percent) not enrolled in school compared to those living in urban areas (3.8 percent), but it is unclear whether this difference represents a lack of rural educational opportunity or whether other factors such as employment opportunity or compulsory attendance laws account for the difference.[4]

In contrast to the census data, public elementary and secondary schools data show a slightly higher percentage of nonmetropolitan enrollment in fall 1971 (34 percent), but this difference may be accounted for by factors such as the possibly greater availability of nonpublic schools in metropolitan areas (table B–3). These figures also show that a potential rural disadvantage may exist because nonmetropolitan kindergarten and prekindergarten enrollments (in contrast to total elementary and secondary enrollment) are considerably below the overall national averages. Since these early years of child development may have important educational consequences in later years, the lack of early educational opportunity in nonmetropolitan areas may be of concern.[5]

Since fall 1971, the national public elementary and secondary school enrollment has been declining. The rate of decline has been more than 1 percent per year in recent years (table B–4). Local variations from year to year can be considerably greater in magnitude. More recent enrollment data for nonmetropolitan areas have not been published; therefore, there is no method of ascertaining whether nonmetropolitan schools have been following this national trend.

TABLE B-1.—TOTAL POPULATION, POPULATION UNDER 18 YR, AND SCHOOL ENROLLMENT IN 1970, U.S. TOTALS AND NONMETROPOLITAN AREAS

Population group	U.S. total	Nonmetropolitan areas	
		Total	Percent of U.S. total
Total population	203,200,000	63,800,000	31.4
Population under 18 yr of age	69,900,000	22,300,000	31.9
Population aged 3 to 34 enrolled in school	58,600,000	17,900,000	30.5

Source: U.S. Bureau of the Census. Census of Population: 1970. General Social and Economic Characteristics. Final Report PC(1)–C1 U.S. Summary. Washington, 1972. Tables 85, 99, 107, and 110.

TABLE B-2.—POPULATION IN 1976 AND POPULATION IN POVERTY, U.S. TOTAL AND NONMETROPOLITAN AREAS

Population group	U.S. total	Nonmetropolitan areas	
		Total	Percent of U.S. total
Total population	211,308,000	66,224,000	31.3
Population in poverty	23,991,000	9,480,000	39.5

Source: U.S. Bureau of the Census. Current Population Reports, Series P-60, No. 110, "Money Income and Poverty Status in 1975 of Families and Persons in the United States and Northeast Region by Divisions and States (Spring 1976 Survey of Income and Education)." Washington, 1978. Table 1C.

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[4] Children's Defense Fund of the Washington Research Project, Inc. "Children out of School in America." Cambridge, Children's Defense Fund, October 1974. p. 37.

[5] Bronfenbrenner, Urie. "Is Early Intervention Effective? Day Care and Early Education," November 1974: pp. 14–18, 44.

TABLE B-3.—PUBLIC ELEMENTARY AND SECONDARY SCHOOL ENROLLMENT, FALL 1971, U.S. TOTAL AND NONMETROPOLITAN AREAS

Enrollment level	U.S. total	Nonmetropolitan areas	
		Total	Percent of U.S. total
All levels	46, 023, 000	15, 615, 000	34
Kindergarten	2, 458, 000	648, 000	26
Prekindergarten	51, 000	6, 000	[illegible]

Source: U.S. Department of Health, Education, and Welfare. National Center for Education Statistics. Statistics of Local Public School Systems, Pupils and Staff, Fall 1971. Washington (NCES 76–146), 1975. Table A.

TABLE B-4.—*Estimated enrollment in public elementary and secondary day schools, fall 1973 to fall 1977, U.S. totals*

Year—Fall of:	
1973	45, 400, 000
1974	45, 100, 000
1975	44, 800, 000
1976	44, 300, 000
1977	43, 700, 000

Source: U.S. Department of Health, Education, and Welfare. National Center for Education Statistics. "Fall 1977 Statistics of Public Schools, Advance Report." Washington (NCES 78–109), 1978. Table 1.

C. SCHOOL FINANCE

Expenditures per pupil in rural school districts are lower than in other school districts, but the data do not appear to be available to show whether the lower figures are a result of smaller costs, fewer resources, or lower tax rates on the part of rural areas. During the 1975–76 school year, the national average per pupil expenditure was $1,235, whereas the expenditure in nonmetropolitan areas was $1,070 per pupil, or 87 percent of the national average (table C–1). Most of this difference is accounted for by smaller instructional expenditures, although expenditures for the transportation of pupils were actually higher in nonmetropolitan areas. Since the nonmetropolitan class sizes are smaller than in other districts (to be discussed in the staff section below), it can be concluded that nonmetropolitan schools pay lower teacher salaries.

Nonmetropolitan school districts also spend proportionally less on capital expenditures. Although nonmetropolitan school enrollment accounts for about a third of the national total, nonmetropolitan school districts account for less than 30 percent of total expenditures for capital outlays and debt service (table C–2). It is unclear whether these lower expenditures actually reflect a rural disadvantage; there may be a sufficient number of rural classrooms already existing, or the cost of materials, sites, and construction labor may be substantially less in rural areas.

The distribution of revenue sources for nonmetropolitan school districts is different from other school districts. Compared with the national average, nonmetropolitan schools obtain a greater share of their revenues from Federal and State sources, and a smaller share from local sources (table C–3). Nationally, most locally raised revenue is based on the property tax—82 percent according to one study.[6]

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[6] Reischauer, Robert D. and Hartman, Robert W. "Reforming School Finance." Washington, The Brookings Institution (1973), p. 5.

As one indication of a smaller capacity to collect property taxes, the 1976 value of owner occupied single family homes in nonmetropolitan areas was only about 80 percent of the national median value (table C–4). However, there seem to be no data available to determine whether educational costs (as opposed to expenditures) are lower in nonmetropolitan areas; if that were true it would tend to mitigate the disadvantages of lower revenue resources.

When compared with their share of national enrollment, nonmetropolitan schools receive Federal educational assistance in amounts about proportional to other schools. Nonmetropolitan public school enrollment constitutes 34 percent of the national total (table B–3 above), while 32 percent of Federal educational funds are allocated to nonmetropolitan areas (table C–5). Federal allocation formulas vary by program but the largest Federal program (Elementary and Secondary Education Act of 1965–ESEA) is for financial assistance to school districts for the education of children from low income families and for improving the quality of education in general and 33 percent of those funds went to nonmetropolitan schools during the 1975–76 school year.

Although nonmetropolitan schools receive amounts of Federal aid nearly in proportion to their enrollment, the percentage of nonmetropolitan school districts receiving aid from the various Federal programs is slightly lower than the percentage of all districts (table C–6). This fact is possibly accounted for by the minimum eligibility requirements of many Federal programs connected with the fact that school districts are smaller in nonmetropolitan areas (to be discussed in the "School District Organization" section below).

TABLE C-1.—CURRENT EXPENDITURES PER PUPIL IN AVERAGE DAILY MEMBERSHIP IN LOCAL PUBLIC SCHOOL SYSTEMS IN 1975-76, U.S. AVERAGE AND NONMETROPOLITAN AREAS

Account category	U.S. average	Nonmetropolitan areas	
		Average	Percent of U.S. average
Total expenditures for all accounts	$1,235	$1,070	87
Administration	53	47	89
Instruction	847	740	87
Attendance and health services	16	8	50
Pupil transportation services	49	61	4
Plant operation and maintenance	145	120	83
Fixed charges	119	85	71
Replacement of equipment	6	9	150

Source: U.S. Department of Health, Education, and Welfare; National Center for Education Statistics; unpublished data

TABLE C-2.—EXPENDITURES OF LOCAL PUBLIC SCHOOL SYSTEMS FOR CAPITAL OUTLAY AND DEBT SERVICE IN 1975–76, U.S. TOTAL AND NONMETROPOLITAN AREAS

[Dollar amounts in thousands]

Expenditures	U.S. total	Nonmetropolitan areas	
		Total	Percent of U.S. total
Capital outlays	$5,704,000	$1,661,000	29
Debt service	4,429,000	996,000	22

Source: U.S. Department of Health, Education, and Welfare; National Center for Education Statistics; unpublished data.

TABLE C-3.—PERCENT DISTRIBUTION OF REVENUE RECEIPTS OF LOCAL PUBLIC SCHOOL SYSTEMS BY SOURCE OF FUNDS IN 1975-76, U.S. AVERAGE AND NONMETROPOLITAN AREAS

Source	U.S. average	Nonmetropolitan areas
Total revenue receipts	100.0	100.0
Local	50.6	42.6
State	41.0	47.1
Federal	8.1	9.9
Combined Federal-State vocational education	.3	.4

Source: U.S. Department of Health, Education, and Welfare; National Center for Education Statistics; unpublished data

TABLE C-4.—MEDIAN VALUE OF OWNER OCCUPIED SINGLE FAMILY HOMES IN 1976, U.S. AND NONMETROPOLITAN AREAS

		Nonmetropolitan areas	
	U.S. median	Median	Percent of U.S. median
Value	$32,300	$26,100	81

Source: U.S. Bureau of the Census; Current Housing Reports (series H-150-76), Financial Characteristics of the Housing Inventory for the United States and Regions. Annual Housing Survey: 1976, pt. C, Washington, 1978, table A-2.

TABLE C-5.—FEDERAL REVENUE RECEIPTS OF LOCAL PUBLIC SCHOOL SYSTEMS BY PROGRAM IN 1975-76; U.S. TOTAL AND NONMETROPOLITAN AREAS

[Dollar amounts in thousands]

		Nonmetropolitan areas	
Federal programs	U.S. total	Total	Percent of total
All Federal programs	$5,339,000	$1,701,000	32
Elementary and Secondary Education Act of 1965	2,041,000	665,000	33
Aid to federally impacted areas	477,000	159,000	33
National Defense Education Act	26,000	11,000	42
Vocational education	190,000	54,000	28
School lunch and milk program	1,561,000	545,000	35
Other Federal programs	1,044,000	267,000	26

Source: U.S. Department of Health, Education, and Welfare; National Center for Education Statistics; unpublished data.

TABLE C-6.—PERCENT OF LOCAL PUBLIC SCHOOL SYSTEMS RECEIVING ASSISTANCE FROM FEDERAL PROGRAMS IN 1975-76, U.S. AVERAGE AND NONMETROPOLITAN AREAS

Federal program	U.S. average	Nonmetropolitan areas
1 or more Federal programs	93.2	90.4
Elementary and Secondary Education Act of 1965	87.0	82.9
Aid to federally impacted areas	24.8	21.4
National Defense Education Act	36.3	35.1
Vocational education	46.5	46.3
School lunch and milk program	86.7	84.5
Other Federal programs	59.7	56.5

Source: U.S. Department of Health, Education, and Welfare; National Center for Education Statistics; unpublished data.

D. ATTAINMENT AND PERFORMANCE

Educational attainment of the nonmetropolitan adult population is somewhat less than that of all adults. The median number of years of school completed by nonmetropolitan adults is almost 1 year less than the national average, and the proportion of nonmetropolitan adults who have completed at least 4 years of high school or college is also smaller than the national average (table D–1). The proportion of adults who have completed less than 5 years of school is higher in nonmetropolitan areas than elsewhere (also table D–1). Less than 5 years of education is commonly used to denote "functional illiteracy," according to the Bureau of the Census.[7] These measures of adult educational attainment, however, do not necessarily indicate that rural elementary and secondary schools are currently performing less well than other schools for at least two reasons. First, rural schools may once have provided education of lower quality but may no longer do so. Second, the rural schools may perform equal to or better than average schools, but possibly a disproportionate number of more highly educated persons may have left the rural areas, leaving behind a greater percentage of educationally disadvantaged adults.

The educational performance of children currently attending rural schools appears to be similar to the national average, although there are some notable exceptions. Since 1969, the national assessment of educational progress (NAEP) has measured educational performance at several age levels in various subjects. NAEP data are not defined according to the standard definitions of metropolitan and nonmetropolitan areas, but the NAEP category of "small places" contains just over 30 percent of the total population and probably includes the majority of nonmetropolitan children.[8] Nine-year-old children from "small places" do not differ significantly in educational performance from national averages on any subject (table D–2), and the results for other age groups are similar.

The NAEP also collects performance data on two "extreme" types of socially and economically disadvantaged places, one in rural areas (called "extreme rural") and the other in inner-city areas (called "low metropolitan").[9] Each of these places contains approximately 10 percent of the population, and appears to have been defined by the NAEP in order to determine the educational performance of children from the most disadvantaged families. Both groups perform at levels significantly below the national averages in most subjects, although the inner-city group regularly has scores lower than the disadvantaged rural group (table D–2). These scores show that educational disadvantage can be found in a number of areas in the Nation, but the nature and extent of the educational problems of rural areas in general cannot be determined from the NAEP data.

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[7] U.S. Bureau of the Census. "Estimates of Illiteracy, by States: 1960." Series P-23, No. 8. Washington, 1963.

[8] The NAEP defines "small places" as communities with a population of less than 25,000 and which are not otherwise classified as "extreme rural" (as defined in the following footnote) in "National Assessment of Educational Progress." General information yearbook, report No. 03/04–GIY. Washington, U.S. Government Printing Office, December 1974. pp. 40–42.

[9] "Extreme rural" is defined by the NAEP as communities with a population of less than 8,000 where a high proportion of adults are farm workers and a low proportion are professional, managerial, or factory workers. "Low metropolitan" is defined as areas of a city with a population greater than 150,000 where a high proportion of the adult population is either not regularly employed or on welfare and a low proportion is employed in professional or managerial positions.

TABLE D-1.—EDUCATIONAL ATTAINMENT OF THE POPULATION 25 YEARS OLD AND OVER IN 1970, U.S. AVERAGE AND NONMETROPOLITAN AREAS

Level of education	U.S. average	Nonmetropolitan areas
Median years of school completed	12.1	11.4
Percent with less than 5 yr completed	5.5	7.0
Percent with at least 4 yr of high school	52.3	45.9
Percent with at least 4 yr of college	10.7	7.7

Source: U.S. Bureau of the Census; Census of Population: 1970; General Social and Economic Characteristics; final report PC(1)-C1 U.S. summary; Washington, 1972; tables 88 and 110.

TABLE D-2.—EDUCATIONAL PERFORMANCE BY 9-YR OLDS BY SUBJECT 1969-73, U.S. MEDIAN AND SELECTED PARTICIPANTS

Subject area	U.S. median	Differences from the national median		
		Small places	Low metropolitan	Extreme rural
Science	63.2	0.9	−15.1	−6.3
Writing	28.3	−.6	−14.2	−4.6
Citizenship	64.1	0	−5.7	−3.3
Reading	70.4	−.6	−14.3	−4.4
Literature	43.9	.3	−9.4	−3.6
Music	58.8	.1	−8.8	−2.7
Social studies	72.2	.5	−11.1	−2.8
Mathematics	36.7	−.5	−10.8	−3.6

Source: U.S. Department of Health, Education, and Welfare; National Center for Education Statistics; Digest of Education Statistics 1977-78; Washington (NCES 78-402), 1978; table 22.

E. STAFF

Public schools in nonmetropolitan areas seem to have a slight advantage over other schools with regard to smaller class sizes: Pupil-teacher ratios are lower in nonmetropolitan areas (table E-1). Smaller classes are often viewed as a distinct educational advantage because teachers can provide increased individual attention to each pupil, because behavioral problems are thought to be minimized, and because the general atmosphere for learning is considered to be enhanced.[10] However, there is little evidence that smaller classes can increase educational achievement (as measured by tests), and smaller classes cost proportionately more for teacher salaries and classroom construction, other things being equal.[11] The nonmetropolitan shares of both classroom teachers and total school staff are slightly greater than the nonmetropolitan share of pupils, a possible advantage for rural education (table E-2).

With regard to specialized staff, rural schools appear to have a slight disadvantage. In a fall 1971 survey, school districts were asked whether they employed the following kinds of specialists: Librarians, guidance staff, psychological staff, audiovisual staff, and teacher aides. In all cases, a smaller percentage of the nonmetropolitan schools reported these specialized personnel than did the Nation's schools as a whole (table E-3). These lower figures may show a disadvantage, but at least in some cases the lack of specialized staff may be merely a result of nonmetropolitan areas having smaller schools. Also, the regular classroom teachers in nonmetropolitan districts may in fact be undertaking many of the activities of specialized staff without the districts reporting the extra activities on the survey.

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[10] Lindbloom, Dwight. "Class Size: Is It an Effective or Relevant Variable?" Ch. 68 in Handbook on Contemporary Education. New York, R. R. Bonker Co. (A Xerox Education Co.), 1976.

[11] Ibid.

TABLE E-1.—PUPIL-TEACHER RATIOS IN FALL 1971, U.S. AVERAGE AND NONMETROPOLITAN AREAS

	U.S. average	Nonmetropolitan areas
Pupil-teacher ratio	22.6	21.9

Source: U.S. Department of Health, Education, and Welfare: National Center for Education Statistics; statistics of local public school systems, pupils and staff, Health, Education, and Welfare, fall 1971; Washington (NCES 76-146), 1975; table M.

TABLE E-2.—SCHOOL DISTRICT STAFF IN FALL 1971, U.S. TOTAL AND NONMETROPOLITAN AREAS

Staff	U.S. total	Nonmetropolitan areas	
		Total	Percent of U.S. total
All school staff	3,494,000	1,219,000	34.9
Classroom teachers	2,035,000	711,000	34.9

Source: U.S. Department of Health, Education, and Welfare; National Center for Education Statistics; statistics of local public school systems, pupils and staff, fall 1971; Washington (NCES 76-146), 1975; tables I and K.

TABLE E-3.—PERCENT OF SCHOOL DISTRICTS REPORTING SPECIFIED STAFF IN FALL 1971, U.S. AND NONMETROPOLITAN DISTRICTS

Type of staff	United States	Nonmetropolitan
Librarians	64.1	58.2
Guidance staff	55.3	49.8
Psychological staff	16.6	7.4
Audio-visual staff	9.8	7.2
Teacher aides	53.2	50.5

Source: U.S. Department of Health, Education, and Welfare; National Center for Education Statistics; statistics of local public school systems, pupils and staff, fall 1971; Washington (NCES 76-146), 1975; table D.

F. SCHOOL DISTRICT ORGANIZATION

The administration of public elementary and secondary education is organized by school districts, and rural education appears to be at a distinct disadvantage in having numerous school districts with small enrollments. Although one-third of the national enrollment is in nonmetropolitan schools (table B-3), nonmetropolitan areas contain more than 70 percent of the Nation's school districts (table F-1). They account for nearly 80 percent of the school districts with the smallest enrollments (districts with less than 2,500 pupils).

Although there appears to be no consensus on the optimum size of schools or school districts, most educators seem to agree that some minimum enrollment is necessary for providing both quality and cost-effective education.[12] A report from the Education Division of the Department of Health, Education, and Welfare suggests that at least 500 pupils are needed for a full educational program in a school district.[13] Another report, by M. L. Cushman, states that both educational quality and cost are generally considered unsatisfactory unless an elementary school has at least 200 pupils and a high school at least 300 pupils.[14] According to Cushman, school districts need at least 3,500 pupils for administrative effectiveness, and from 20,000 to 30,000 pupils for economical administrative services.

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[12] The research supporting quality and cost efficiencies of rural consolidation is critically discussed by Sher, Jonathan P., and Rachel B. Thompkins in "Economy, Efficiency, and Equality: The Myths of Rural School and District Consolidation," ch. 2 in Sher, Jonathan P., edit. Education in Rural America. Boulder, Westview Press, 1977.

It seems clear that many rural communities cannot support school districts of these suggested sizes; however, considerable improvement in cost and quality might be obtained for rural education through greater efforts to consolidate existing schools and school districts. Since the 1930's, the national trend in school and school district consolidation has been pronounced, with the number of school districts decreasing from 128,000 to 16,000 in that time (table F–2).

Small school districts with enrollments under 2,500 pupils may represent a special rural educational problem. Although these districts account for only 19 percent of all enrolled pupils,[15] they account for more than three-quarters of all school districts and the vast majority of them are located in nonmetropolitan areas (table F–1). In comparison with national averages, these smaller districts have higher expenditures per pupil, but they spend more for administration and pupil transportation, participate less frequently in Federal educational programs, and have lower pupil-teacher ratios (table F–3). No statistics on educational attainment or performance for these school districts appear to be available. It is assumed that many of these districts are located in sparsely populated areas, but supporting data appear to be lacking here, also.

TABLE F-1.—NUMBER OF PUBLIC SCHOOL DISTRICTS BY SIZE IN 1971, U.S. TOTAL AND NONMETROPOLITAN AREAS

School district enrollment size	U.S. total		Nonmetropolitan districts	
	Number	Percent	Total	Percent of U.S. total
All districts	16, 581	100	11, 800	71
25,000 or more	184	1	7	4
10,000 to 24,999	559	3	130	23
5,000 to 9,999	1, 112	7	46	42
2,500 to 4,999	2, 025	12	1, 078	53
Under 2,500	12, 701	77	10, 121	80

Source: U.S. Department of Health, Education, and Welfare; National Center for Education Statistics; statistics of local public school systems, pupils and staff, fall 1971; Washington (NCES 76-146), 1975; table i.

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[13] U.S. Department of Health, Education, and Welfare. National Center for Education Statistics. "The Condition of Education, 1975 Edition." Washington (NCES 75–412), 1975. p. 55.

[14] Cushman, M. L. "School District Reorganization." The Encyclopedia of Education. The Macmillan Co., and the Free Press, 1971. vol. 7, pp., 589–92.

[15] U.S. Department of Health, Education, and Welfare. National Center for Education Statistics. "Statistics of Local Public School Systems, Pupils and Staff, Fall 1971." Washington (NCES 76–146), 1975. Table C.

TABLE F-2.—NUMBER OF PUBLIC SCHOOL DISTRICTS AND SCHOOLS FROM 1931–32 TO 1975–76, U.S. TOTALS

School year	Public school districts	Public school systems elementary schools: Total schools	Public school systems elementary schools: 1-teacher schools	Secondary, total schools
1931–32	128,000	233,000	143,000	26,000
1941–42	115,000	183,000	108,000	25,000
1951–52	71,000	124,000	51,000	24,000
1961–62	36,000	82,000	13,000	25,000
1970–71	18,000	66,000	2,000	25,000
1975–76	16,000	63,000	1,000	25,000

Source: U.S. Department of Health, Education, and Welfare; National Center for Education Statistics; Digest of Education Statistics 1977–78; Washington (NCES 78–402), 1978; table 59 (table 31 of this publication shows that public elementary and secondary enrollment nearly doubled during these years, from 25,700,000 pupils in 1929–30 to 45,400,000 in 1973–74).

TABLE F-3.—COMPARISON OF U.S. AVERAGES TO SCHOOL DISTRICTS WITH ENROLLMENTS UNDER 2,500 PUPILS IN 1975–76: EXPENDITURES, FEDERAL PROGRAMS, AND PUPIL-TEACHER RATIOS

	U.S. average	School districts with enrollment under 2,500
Expenditures per pupil	$1,235	$1,171
Administration	53	60
Instruction	847	786
Attendance and health services	16	10
Pupil transportation	49	71
Plant operation and maintenance	145	134
Fixed charges	119	99
Replacement of equipment	6	11
Percent of districts receiving assistance from Federal programs	93	91
From Elementary and Secondary Education Act of 1965	87	83
From aid to federally impacted areas	25	21
From National Defense Education Act	36	30
From vocational education	47	39
From school lunch and milk	87	83
From other Federal programs	60	52
Pupil-Teacher ratio (fall 1971)	22.6	20.8

Sources: U.S. Department of Health, Education, and Welfare; National Center for Education Statistics; unpublished data. U.S. Department of Health, Education, and Welfare; National Center for Education Statistics; statistics of local public school systems, pupils and staff, fall 1971; Washington (NCES 76–145), 1975, tables A and E.

Federal Alternatives and Key Issues

A. CURRENT FEDERAL PROGRAMS

Alternative.—One alternative of Federal assistance for rural education is the continuation of existing Federal programs. There are currently no Federal aid programs for "rural educational assistance," just as there are no Federal programs for "urban educational assistance" or for "suburban educational assistance." Federal aid programs do exist for assisting many recognized areas of educational need, however, including:

Financial assistance for the education of children from low-income families;

School libraries and learning resources;
Educational innovation and support;
Education of handicapped children;
Vocational education;
School lunch programs;
School assistance and construction in federally affected areas;
Educational assistance for migratory children;
Indian education;
Bilingual education; and
Educational research, development, and dissemination programs.

Rural schools receive assistance from virtually all of these Federal programs.

Cost.—Public elementary and secondary school revenues received from Federal programs during the 1977–78 school year were estimated at $7.8 billion (table A–1 above). Assuming the nonmetropolitan share of this aid remained the same as reported in the 1975–76 school year—32 percent of Federal funds (table C–5 above)—the cost to the Federal Government for the nonmetropolitan share would be about $2.5 billion in the 1977–78 school year.

Key issues.—Several key issues exist in connection with any of the proposed Federal alternatives. Resolutions to these issues will in general extend beyond currently available knowledge about the condition of rural education. Some seem likely to require additional research, others will rely more on basic value judgments about the priorities and objectives of education itself, and most will depend on legislative preferences and decisions for a final determination.

With regard to the continuation of current Federal programs, do they address the most urgent educational needs of rural areas? Although priorities of educational needs depend upon value judgments, most persons would agree that current programs address many rural educational needs. It also seems clear that additional needs exist, both rural and otherwise, but the determination of their urgency is more dependent on legislative decisions than on educational research.

Has the level of Federal funding provided significant assistance to meet these needs? Despite the 8 to 10 percent overall Federal share of funding, in some States and school districts the Federal share for a specific program purpose can be considerably higher. In addition, some programs require standards of service and financial equity for eligibility, thereby increasing the impact of the Federal funds.

Do the programs represent Federal interference in a traditional area of State and local responsibility? Any program that exerts leadership or has an impact may be labeled by some as "interference." Others may claim that there is a national interest in quality education, and therefore a Federal responsibility as well.

Is enough known about educational problems or solutions, both rural and otherwise, to justify either continuing current programs or making significant departures from them? This is most likely a legislative decision, although current programs have at some point been effectively justified. Furthermore, precise statistical data are not a necessity either for a consensus that a problem exists, or for providing Federal assistance to meet perceived needs.

B. REDISTRIBUTION WITHIN CURRENT FEDERAL PROGRAMS

Alternative.—Redistribution of Federal funds under current programs could be accomplished in a number of ways which might benefit rural education.

1. Changes in allocations within programs

Formulas which allocate Federal aid to counties or school districts could be changed to give extra weight to rural children or to add a sparse-population factor for the benefit of rural areas. (The principal programs with county or school district allocation formulas are title I of the Elementary and Secondary Education Act of 1965 (ESEA) and impact aid for school assistance to federally affected areas.) Federal formulas that allocate funds only to the State level might more appropriately be changed to include a specific set-aside for rural areas. States receiving such funds would then be required to spend that proportion of the Federal aid on either rural schools or rural educational problems.

2. Changes in allocations among programs

Funds for the various Federal educational programs could be modified to place a greater emphasis on educational research, development, and dissemination. A rural set-aside could be required for the distribution of these funds so that, for example, a third of such appropriations might be spent on rural educational problems. Specific activities also might be required, such as projects to define and measure rural educational problems, to develop solutions to them that have widespread applicability, and to collect and publish rural educational statistics on a regular and timely basis. Greater emphasis could also be placed on funding Federal development and dissemination programs that hold some promise for improving rural education, such as the educational space satellite program to increase communications and educational services to isolated and remote schools, and the regional educational laboratories that concentrate on rural educational programs.

3. Consolidation of Federal programs

Federal educational program consolidation could decrease the paperwork required of State and local officials and could remove the categorical restrictions on the usage of funds at the State and local levels. These changes could benefit rural schools by increasing the flexibility in the use of Federal aid to meet rural educational needs. To the extent that rural schools have fewer staff members than the average school, these schools may be the most burdened by the paperwork required by each Federal program.

Cost.—These proposed changes might be accomplished without a net change in the overall Federal cost. Formula modifications might redistribute Federal funds without increasing the overall appropriations. A mandatory rural set-aside of, say, two-fifths of the allocation might help some rural districts, but at the expense of metropolitan school districts. A requirement for a rural component in all major Federal research and development projects might only necessitate a small shift in funds away from nonrural components. Program consolidation might have an indirect cost in that paperwork may be an important source of information regarding a specific educational problem; a reduction in paperwork through program consolidation might also reduce the information collected about the particular problems addressed by the affected programs.

Key issues.—Do rural areas already receive an equitable share of Federal educational aid? The simplest measure of equity would probably be a comparison with the number of pupils—by this standard rural areas appear to receive aid in proportion to the share of pupils. More sophisticated measures of equity, such as the proportion of economically disadvantaged pupils, are usually considered in combination with the costs of educational services. New measures of need and adjustments to current formulas are often topics of legislative discussions during oversight and authorization hearings.

Does current knowledge of rural educational problems justify an increase in the rural share of Federal funds? The statistical information available on rural education indicates that problems exist, but it is not clear that the problems are more severe in rural areas than in other localities.

Would the benefits of additional research on rural problems outweigh the benefits of increased direct assistance to rural schools? Direct assistance may have an immediately recognizable impact on school districts, but there is also a need for additional research, both in the identification of more specific rural educational problems and also in the attempt to find more widely applicable solutions to these problems.

Do the benefits of Federal program consolidation outweight the possible disadvantages? The answer would appear to depend on the determination of the value of Federal educational leadership and national interest compared to the ability of State and local officials to determine their own needs. Additional research or statistical data would seem to have only minor relevance in this decision.

C. STATE FINANCING STANDARDS

Alternative.—To establish eligibility for receiving Federal educational assistance, States might be required to meet certain standards of equity in the distribution of their own funds for elementary and secondary education. This proposal might be expected to help poorer school districts—rural or otherwise—in States where the school finance system is dependent on local property wealth for raising a major share of school revenues. Many States are already examining and correcting apparent disparities, often by methods such as placing educational property taxation on a statewide basis or by increasing the State share of State and local revenues for education.[16] These State reform efforts might be accelerated by making minimum standards of school finance equity a requirement for the receipt of Federal educational funds. Federal assistance has been available in the past to reimburse some of the costs incurred by the States for planning and administering certain types of financial reforms in education—authorized by section 842 of the Education Amendments of 1974.

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[16] A discussion of current methods of school financing and possible reforms is contained in Reischauer, Robert D. and Hartman, Robert W. "Reforming School Finance." Washington, The Brookings Institution (1973).

Costs.—These eligibility requirements do not need to imply any additional Federal cost beyond the efforts needed to establish whether or not each State has complied with the proposed Federal standards. However, in any State which might refuse or be unable to comply with the proposed requirements, the State or the schools themselves would have the extra cost of replacing the Federal revenues thereby lost. The authorized Federal cost for the State planning assistance varies between $100,000 and $1 million per State under the provisions of section 842.

Key issues.—Is it appropriate or desirable that the Federal Government become involved in determining the standards for State and local school finance? In some ways, the Federal Government has already become involved through providing planning assistance for certain types of educational reform. Also, the largest Federal assistance program, title I of ESEA, requires that educational services between target and nontarget schools be comparable before expenditure of title I funds (sec. 126(e) of ESEA). Statewide standards of equity could represent a considerably larger undertaking, and the States that have moved in this direction by themselves have usually done so only with significant increases in total educational expenditures.

Is it feasible to establish a single set of standards for school finance, or would educational equity be better served by allowing State and local officials to set their own priorities? Additional school finance research might be useful in determining feasibility, but basically the question seems to require legislative decisions focusing on values.

Are such eligibility requirements too demanding on the States when compared with the current levels of Federal aid? Many States have already undertaken school finance reform regardless of the level of Federal assistance. However, since many of these reforms have resulted in increased educational expenditures, additional Federal aid in conjunction with this alternative might be found useful to those affected by the proposal.

D. NEW FEDERAL EDUCATIONAL PROGRAMS

Alternative.—New Federal assistance programs could be designed to meet possible rural educational needs not addressed not by current programs. These programs could be limited exclusively to rural school districts or they could be made available to assist any school district with a demonstrated need for the proposed program.

1. Pupil transportation

Nonmetropolitan school districts were shown in the preceding section to have pupil transportation expenses nearly 25 percent higher than the national average per pupil cost during the 1975–76 school year. Individual school districts in sparsely populated areas can pay considerably more for transportation. A Federal program could be designed to help subsidize these extra costs.

2. Sparse population

School districts with low population density may have special educational needs beyond those of "average" rural districts, and various Federal programs might help to alleviate the additional problems.

Pupil transportation assistance might be one method, and the inclusion of special payment provisions in current Federal allocation formulas could also help. A third form of assistance could be through making advanced communications technology (such as educational space satellites) available to the schools in sparsely populated areas.[17] Direct, general assistance could also be provided instead of programs limited to specific categories of need.

3. School construction

Rural education might be helped by a federally assisted school construction program. Construction needs can be independent of the overall national trend of gradually declining school enrollments, because local schools can experience much greater fluctuations in enrollments. A recent report shows that even among the nonmetropolitan counties that had declining populations during the 1960's, there are many counties that are currently experiencing growth.[18] On the other hand, areas with decreasing populations may be places that can least afford the resources to renovate or replace inadequate school buildings. Since capital costs often need to be financed in large amounts at a single time, smaller or poorer school districts might be at a particular disadvantage regarding these expenditures. The greater resources of the Federal Government might be especially helpful for this proposed assistance.

4. General educational assistance

A Federal program for general assistance to school districts could be designed, either in the form of a consolidation of existing Federal programs or in the manner of general revenue sharing for school districts. This program might maximize the discretion with which rural schools could use the Federal funds to meet local needs.

Cost.—Costs for these programs would depend on specific legislative provisions for each kind of assistance as well as whether eligibility for assistance would be restricted to rural schools. Overall Federal costs would also depend on whether these proposed programs replaced current programs or whether the funds for them were obtained by decreasing expenditures for the current activities. Total expenditures for pupil transportation services by nonmetropolitan school districts amounted to more than $800 million during the 1975–76 school year.[19] Sparse population assistance could be financed by changes in existing formulas, in which case there might be no significant additional cost. School construction costs would be dependent on whether the Federal program would pay for the entire costs or for only a share of necessary assistance. Total expenditures for capital outlays and debt service by nonmetropolitan school districts amounted to almost $2.7 billion during the 1975–76 school year (table C–2 above). The grand total expenditures by nonmetropolitan school districts can be currently estimated at nearly $21.6 billion.[20] If a Federal program were to fund, say, a third of this amount, the cost would be more than $7 billion per year.

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[17] The educational satellite program of the National Institute of Education is described by Grayson, Lawrence P. "Educational Satellites: The ATS-6 Experiments." Journal of Educational Technology Systems, vol. 3(2), fall 1974: pp. 89–123.

[18] A statistical analysis of these countries is provided in U.S. Department of Agriculture, Economic Research Service. "Socioeconomic Characteristics of Growing and Declining Nonmetropolitan Counties, 1970." Washington, Agricultural Economic Report No. 306, August 1975

[19] U.S. Department of Health, Education, and Welfare. National Center for Education Statistics. Unpublished data.

Key issues.—In addition to consideration of the priorities of rural educational needs and whether these needs are great enough to justify implementing additional Federal programs despite traditional State and local responsibility, some issues exist specifically related to these Federal alternatives. Is the need for pupil transportation assistance great enough to overcome the possible entangling issues of school busing and desegregation? This question seems most likely to be decided by legislative judgment.

Will Federal assistance for sparsely populated areas support the continuation of some schools or school districts that might otherwise be consolidated for purposes of cost effectiveness or possibly higher quality education? Legislative or administrative attention to this problem could probably minimize this result. Additional research might help establish basic eligibility standards for assistance.

Should the Federal Government significantly increase its share of public school revenues—a likely result of the school construction and general school assistance proposals? There is no conclusive answer to this question, but some of the ramifications will be addressed in the following section.

E. CHANGES IN THE FEDERAL FUNDING LEVEL

Alternative.—The level of funding of Federal educational assistance could be changed—either in conjunction with current Federal programs, redistribution within current programs, State financing standards, new Federal programs, or some combination of these proposals—for the possible benefit of rural education and rural areas.

1. Decreased assistance

Overall Federal aid to education could be reduced. It is estimated that public elementary and secondary schools spent $82.7 billion during the 1977–78 school years, of which $7.8 billion (9.4 percent) came from Federal sources (table A–1 above). The Federal share has remained relatively constant during the past 10 years, but before that time Federal assistance seldom reached half as much. A reduction in Federal assistance could be used to decrease Federal taxes or to prevent or delay future increases. Federal assistance could also be transferred from educational services to other forms of assistance with perhaps equal or greater demonstrable needs—such as employment, income, or health programs—with varying impacts on rural areas.

2. Increased assistance

Increases in Federal assistance could be accomplished with almost any combination of the proposals discussed above. Many current Federal programs are funded below the level of authorization, so that some additional appropriations could be provided without any changes in the legislation. (Some programs are funded at one-half or less than the maximum level authorized, such as the current funding level for title I of ESEA.) Increases in conjunction with changes in current programs or with the establishment of new programs could make these other proposals more acceptable to the State and local officials affected by the changes.

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[20] The figure of $21.6 billion is based on the estimated total national expenditures of $82.7 billion (table A–1 above) and on the assumption that nonmetropolitan schools still spent about 26.1 percent of the national total, as they did in the 1975–76 schol year (U.S. Department of Health, Education, and Welfare, National Center for Education Statistics, Unpublished data).

Costs.—The cost of these proposals would be dependent on the specific changes. Decreases would be limited to the estimated $7.8 billion currently being provided by Federal programs. Few proposals for increases in the Federal share have suggested that the share be greater than a third of the total Federal, State, and local expenditures for public elementary and secondary education. With total expenditures estimated at $82.7 billion for the 1977–78 school year, a third of that amount would be $27.6 billion, or an additional $19.8 billion above the current level of Federal assistance.

Key issues.—At current Federal budget levels for all services, does the amount provided for educational services match national priorities for education, or should the amount be increased or decreased? The answer to this question could depend on overall budget priorities, the legislatively perceived role of the Federal Government in education, and the estimated importance of continuing the tradition of State and local responsibility for public education.

Is the Federal share of educational funds for rural areas consistent with national needs and priorities? The answer to this question also depends on legislative value judgments, but it has been shown that Federal funds are already allocated to rural areas in rough proportion to rural population.

Should the Federal role in education be limited to a financial partnership, or should it help provide direction in establishing standards of educational quality and performance? If the Federal financial share were to be increased, this question would probably have increasing importance. Virtually all Federal programs have some eligibility requirements, spending priorities, and accounting standards and to some extent those provisions imply some Federal direction of education.

RURAL LABOR MARKETS AND FEDERAL POLICY: AN OVERVIEW [1]

INTRODUCTION

In each of the last three decennial censuses the absolute number of Americans residing in the rural sections of the Nation has remained relatively stable at around 54 million. As a proportion of the total population, however, the rural population has declined from 36 percent in 1950 to 26.5 percent in 1970. Even more significant, though, is the change in the composition of rural America itself. In 1940, more than half (52.8 percent) of the rural population was considered as "rural farm;" by 1970 this proportion had declined precipitously to less than one-sixth of the rural population (15.4 percent).

This paper will examine these population shifts and their effect on rural employment or vice versa, and the more recent research in this area. While some problems exist with the nature in which rural data are collected, several important conclusions can be drawn from the available evidence.

PROBLEMS OF DEFINING RURAL

One of the major problems in assessing rural employment trends is the absence of consistent data sets. The Bureau of Census of the U.S. Department of Commerce defines rural as persons living in open country plus small towns of less than 2,500 persons, unless inside the urban fringe of metropolitan areas. The Bureau of Labor Statistics in the U.S. Department of Labor defines them as counties where a majority of people live in places of less than 2,500. Both agencies also use the concept nonmetropolitan, which is all persons living outside of SMSA's.[2]

In addition, there are still other definitions used by the U.S. Department of Agriculture (for example, open country plus places with population of 10,000 or less). All of these are "official" definitions used by one Government agency or another. One must be very cautious, therefore, to use consistent (by definition of rural) data sets when addressing changes in rural employment. Thus, in the discussion which follows, the reader must be cognizant of which definition is being used for rural.

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[1] By Dennis M. Roth, specialist in labor economics and relations and Jeffery H. Burton, analyst in labor economics and relations, Economics Division, Congressional Research Service, the Library of Congress.

[2] An SMSA (standard metropolitan statistical area) is a metropolitan area containing at least 1 central city (or joined central cities) of at least 50,000 inhabitants. It covers the county of the central city and adjacent counties found to be economically and socially integrated with that county. Thus, it is quite conceivable that a metropolitan area (SMSA) may include rural areas due to the inclusion of entire counties into the definition. Likewise, a nonmetropolitan area may include cities of less than 50,000.

RURAL EMPLOYMENT—OVERVIEW

Employment and unemployment problems in the large industrial areas of the United States generally receive the bulk of publicity and governmental attention; however, these problems are just as real in rural America. Because fewer individuals are involved, these problems in rural areas tend not to receive their proportionate share of attention. In addition, it should be recognized, that a large part of the recent problems in urban America (poverty, uneducated, and unskilled work force) can be directly traced to inadequate manpower development and training programs for rural residents and the decline of meaningful and rewarding employment prospects in their immediate areas. Significant numbers of unemployed urban residents are rural migrants who had purposefully come to the city to escape the plights of their own areas.

In examining rural employment trends it is important to note that the problems of underemployment is not addressed. Farmworkers, while declining in number, are often employed in agriculture on a part-time or seasonal basis. The remainder of the year, many of these individuals cannot find gainful work, a number being ill trained to meet their productive potential in other nonfarm related work in rural or urban America. According to many observers, the most serious employment problem in rural America is the underutilization of human resources.

There has been a significant decline in multiple job holding by agricultural workers. In May 1977, 6.1 percent of agricultural workers held 2 or more jobs. This proportion has steadily declined from 1956 when 11.2 percent of the agricultural work force had 2 or more jobs.

Rural labor markets also lack the structure and institutions found in urban labor markets. Labor unions, employment agencies (both public and private), and government education and training centers tend to be much more active in urban as opposed to rural areas. Disadvantaged rural residents often lack effective organization and rural workers have generally been less politically effective in convincing the Federal Government and economic decision makers to address fully their problems and meet their needs.[3]

Rural areas are typically plagued by labor surpluses. Rural residents have fewer employment alternatives than urban residents and rural areas are more likely to be the homes of low-wage industries. Due to the migration to urban areas of the better educated and younger workers, the rural labor force also tends to have a large proportion of the disadvantaged and aged work force.

It is inappropriate, however, to state that all of rural America is suffering from economic decline. Rural areas are not all alike but are heterogeneous, with certain areas experiencing growth and revitalization while others are experiencing stagnation and decline.

As a whole, agricultural employment has shown some signs of stabilizing. Net migration from farms averaged 5.3 percent per year from 1950 to 1960, 5.6 percent per year from 1960 to 1970, but only

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[3] Ray Marshall, "Rural Workers in Rural Labor Markets," Olympus Publishing Co., 1974, p. 17.

2.1 percent from 1970 to 1975. The great farm-urban exodus appears to have ended, or at least to have significantly slowed down, but labor-saving technology continues to release labor from agriculture.

The decade of the 1970's has shown, however, that rural employment was diversifying (based on metropolitan, nonmetropolitan data[4]) with significant growth in the government, services, and retail and wholesale trade industries. In particular, retirement and recreation activites industries grew as did 4-year colleges.[5] This expansion has brought with it a population flow into nonmetropolitan areas. From 1970 to 1975, nonmetropolitan population increased by 6.6 percent compared with metropolitan growth of 4.1 percent. Over approximately the same period, around 40 percent of the increase in nonfarm employment took place in nonmetropolitan areas, expanding slightly its share of total employment to over 25 percent. This is the first time a trend toward more rapid growth in nonmetropolitan rather than metropolitan areas has been observed in the history of the United States. And this growth has resulted from net immigration (1.8 million persons over the 5-year period as opposed to a net outmigration of 3 million people from 1960 to 1970) rather than by rates of natural increase (excess of births over deaths). This growth has occurred both in the nonmetropolitan counties that adjoin metropolitan areas and in those that are further from metropolitan influence, but it cannot be generalized as renewed growth of small towns, many of which continue to decline in population. The bulk of the growth is taking place in the open country and along highway corridors between major metropolitan areas.

RURAL LABOR MARKETS

The amount of individuals employed in rural labor markets is a function of the demand for and supply of rural workers. The demand for labor (as well as for other inputs) is a derived demand meaning that the amount of labor employed results from the production levels of goods produced—labor is an input demanded to produce other things and is not an end in itself. The amount of labor employed thus depends on: (1) The level of demand for the products of firms producing in rural areas; (2) the number and size of firms who find it more profitable to locate in rural as opposed to urban areas; and (3) the profitability to these firms of employing labor relative to other inputs which are substitutes, that is, the degree of mechanization.

The supply of labor or the labor force of an area is defined as the number of persons working plus the number of persons who want work, are actively seeking work, but are unable to find jobs. Numerous physical, economic, and cultural factors interact to influence labor supply.

Physical factors include the size of the area's population, birth rates, death rates, the age composition of the population, and the health of the population. The size of the rural population is currently large relative to the current demands for rural labor because of the switch from labor to capital in the agriculture and natural resource industries in these areas. In addition, birth rates in rural areas have been higher than in urban areas. As mentioned earlier, the rural population has remained relatively constant over the past three decades in spite of a consistent migration from agriculture. Those who did migrate have tended to be the "cream" of the local labor force, leaving behind the older unskilled labor force.

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[4] Recall that a metropolitan-nonmetropolitan breakdown is not an urban-rural breakdown because rural areas may exist in metropolitan areas and urban areas may exist in nonmetropolitan areas.

[5] Luther Tweeten, "Rural Employment and Unemployment Statistics," Background Paper No. 4, National Commission on Employment and Unemployment Statistics, May 1978.

FARM EMPLOYMENT

Perhaps the most dramatic shift in the demand for labor in the United States has been in agriculture. The number of people on farms has steadily decreased since the end of World War II. In 1945, 17.5 percent of all Americans lived on farms; the figure was 3.6 percent in 1977. The number of farms has decreased from 6 million in 1945 to 2.7 million in 1977, while the average size of a farm has increased from 191 acres to around 400 acres in the same period.

Total farm employment has shown an equally dramatic decline. At the end of the Second World War, 10 million individuals worked on farms, but this figure has steadily declined to about 4 million in 1977.[6] The agricultural sector supplied 13.8 percent of U.S. jobs in 1947, while providing only 3.6 percent of total jobs in 1977.[7]

These shifts have taken place because it has been profitable for farmers to substitute increasing amounts of machine power for human labor as technological breakthroughs in agriculture developed. This substitution has caused a very large increase in the productivity of workers remaining on the farm, a decline in the number of farms due to increases in the economic size of farms as a result of mechanization, and the displacement of many workers who previously owned or worked on farms.

For the last several years, the proportion of self-employed persons in agriculture has also declined. As farms merged, many small farmers became farmworkers. In 1948, 61 percent of the agriculturally employed population was self-employed; by 1977 the self-employed had declined to 48 percent of all agriculturally employed.[8]

The number of individuals who served as hired farmworkers during the year declined from a postwar peak in 1950 of 4.3 million to 2.6 milion in 1971. Recently, the number of hired farmworkers has increased slightly. In 1976, 2.8 million people were employed as hired farmworkers at some point during the year.

Contrary to popular belief, migrants are not dominant in the farmworker population. Over the last few years, approximately 7–8 percent of the hired work force were migrant.[9] This percentage level is down from the range of 10–15 percent that was characteristic of the 1960's. Regional patterns in the South and West reflect trends toward a decrease in migrants.

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[6] Economics, Statistics, and Cooperatives Service, U.S. Department of Agriculture "Farm Labor," various issues.

[7] Employment and Training Administration, U.S. Department of Labor, "Employment and Training Report of the President," 1978, table A–1. It should be noted that the employment figures released by USDA and DOL differ due to the fact they come from different surveys which use different definitions.

[8] Employment and Training Administration, ibid. Table A–17.

[9] Individuals who: (1) Left their homes temporarily overnight to do farm wagework in a different county within the same State or in a different State with the expectation of eventually returning home, or (2) no usual place of residence, and did farm wagework in two or more counties during the year.

Changes have also taken place with respect to the location and composition of hired farmworkers. In 1948–49, 65 percent of hired farmworkers lived on farms; in 1973–75, this proportion had fallen to 23 percent. Thus, more than three-quarters of hired farmworkers today do not live on farms, but commute to their agricultural workplace. The geographic composition of hired farmworkers has also undergone a significant change over the 1963–65 to 1973–75 period. At the beginning of the period 53 percent of all hired farmworkers lived in the South, 20 percent in the West, 18 percent in the North Central, and 9 percent in the Northeast. By 1973–75, however, the number of hired farmworkers in the South had declined by 43 percent, reducing its share of the total to 38 percent. In comparison, the number of farmworkers residing in the Northeast declined by 20 percent while the North Central gained about 20 percent. By 1973–75, the North Central and West had increased their shares to 27 and 26 respectively, while the Northeast share remained at 9 percent.

While the number of hired farmworkers declined by 20.3 percent between the 1963–65 period and the 1973–75 period, the decline was greater in some age groups than in others. Numbers in the age intervals 25–44 years and 45–64 years decreased the most (by 25.3 percent and 45 percent, respectively), causing a drop in the median age from 25 years in 1963–65 to 23 years in 1973–75. The racial composition and distribution of the hired farm workforce has also changed over the last 10 years, with fewer minority workers doing farmwork in the 1970's. The number of blacks and other minorities declined by 59 percent from 1963 to 1965 to 1973 to 1975, while the number of whites remained relatively stable. Consequently, blacks accounted for only 16 percent of all hired farmworkers in 1973–75, compared to 30 percent in 1963–65.[10]

As employment in the agricultural sector stabilizes (or declines somewhat), many analysts look to the rural nonfarm sector for the potential to provide new employment opportunities for displaced and underemployed rural workers. The following section of this paper will cover recent trends in rural nonfarm employment.

NONFARM EMPLOYMENT[11] AND RESIDENCE

It has been common to equate rural America with agriculture. Actually, only a small percentage of the rural work force is engaged in farm production. In 1950, 17.8 million of the rural residents were employed, of which 8.0 million, or 44.7 percent, lived in a rural farm area. Even more important, however, is the fact that only 2.2 million, or 12.4 percent, of the rural employed were engaged in farm activities. By 1970, those residing in rural areas increased their employment level to 18.7 million, but only 3 million, or 16.2 percent, lived in a rural farm area. Of the total rural employed, only 2 million, or 10.9 percent, did farmwork in 1970.

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[10] Data for Spanish-origin farmworkers were not available for these time periods.

[11] Figures for 1950 include 14–15 year olds. In the case of farm employment, this difference may be so significant as to make any historical farm production employment comparisons inaccurate.

Looking at these same data in a different way reveals that in 1950 87.6 percent of the rural employed were engaged in nonfarm activities and this proportion increased to 89.1 percent in 1970. Thus, the share of rural residents engaged in nonfarm activities increased only slightly over the 20-year span, 1950–70.

It is also interesting to examine the employment of rural residents from an industrial standpoint. While the total employment of rural residents increased by 1.4 million (8.3 percent) from 1960 to 1970, the employment growth was not present in all industries.[12] The number of rural residents engaged in agriculture, forestry, and fisheries declined by 1.4 million (in the case of agricultural employment it is possible to add 14- and 15-year-olds back into the data), or 35.6 percent over the decade of the 1960's. On the other hand, rural residents working in both the manufacturing and professional and related services industries each increased by over 1 million, or by 25.2 percent and 67.8 percent respectively. These changes were typical of the overall national trend.

Unfortunately, these data, as were the occupational data, are based on the place of residence, rather than the place of work, making it impossible to determine if these employment shifts were in urban or rural areas. Thomas Till [13] has, however, investigated the location of growth in rural employment in 13 Southern States. He found that in counties located 50 miles from SMSA's, nonfarm employment increased by 48.9 percent (674,345 jobs) as opposed to 49.7 percent (2,811,677 jobs) in the SMSA's themselves. In the case of manufacturing employment he found that the distant rural counties grew by 61.1 percent (308,972 jobs) and the SMSA's by 47.7 percent (701,916 jobs). In percentage terms, the growth in both nonfarm and manufacturing employment were found to be greater in the distant rural counties than in rural counties within 50 miles of an SMSA. These findings strongly suggest that rural employment growth, at least in the South, has not been primarily an urban fringe phenomenon.

A significant proportion of the employment growth in rural manufacturing has been in labor intensive industries. It is argued that firms seek out rural areas because of large supplies of labor, low wage rates, and low degrees of unionization. This action appears to be particularly true in the rural South where employment is heavily concentrated in relatively low paying, nondurable manufacturing firms.[14]

As agricultural and logging-sawmill employment declined in the South, the outmigration of labor was not sufficient to rid the market of excess workers. The labor surplus initially attracted maginal labor-intensive, low paying textile, apparel, and shoe manufacturers. As the labor force became more production line oriented, labor-oriented medium-wage and more capital intensive manufacturing firms located in the South (electrical and nonelectrical machinery and transportation equipment plants). It remains to be seen if relatively high wage, capital intensive, and often highly unionized firms will locate in rural areas. Such decisions will, of course, be based on the relationship of wage levels relative to the price, productivity, and access conditions facing firms desiring to locate in rural areas. It is, therefore, possible that high wage regions may experience an expansion of employment opportunities if in lower wage regions wages are not low enough.

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[12] Included are 14 and 15 year olds in 1960, but not the 1970, data.

[13] Thomas Till, Allen Thompson, and F. Ray Marshall, "Stages of Industrial Development and Poverty Impact in Nonmetropolitan Labor Markets of the South," Center for the Study of Human Resources, University of Texas, Austin, Tex., 1975.

[14] F. Ray Marshall, "Rural Workers in Rural Labor Markets," Olympus Publishing Co., Salt Lake City, 1974, p. 73, and Thomas E. Till, Allen Thompson, and F. Ray Marshall, "Stages of Industrial Development and Poverty Impact in Nonmetropolitan Labor Markets of the South," Center for the Study of Human Resources, University of Texas, Austin, 1975.

Investigators have also found that the rural industrial process has not affected all persons living in rural areas to the same extent. Till, Thompson, and Marshall note that the areas of the South heavily populated by blacks have experienced the least degree of industrialization.[15] James Walker also found that the black poor did not share equitably in the economic growth and development of the Deep South.[16] Still other research by Somers suggests that when a high wage industry does decide to locate in a rural area, it is likely to "skim" the local labor force, hiring only the "best" workers and bypassing altogether the chronically unemployed and disadvantaged.[17]

Another important finding of recent studies is that while rural industrialization has been progressing at a rapid rate, the growth in employment has not been sufficient to offset the large employment losses in agriculture. In addition, it has been the mature, slow-growth firms that have tended to locate in rural areas because of the large supply of cheap labor. Thus, it remains to be seen if workers in rural areas will trade marginal agricultural jobs for low wage manufacturing jobs and remain at a low socioeconomic level or whether this type of industrialization is only the first of several stages which will eventually lead rural America to a position comparable to the rest of the United States.

FUTURE TRENDS

The trends toward fewer, larger, and more specialized farms that are more and more dependent on the nonfarm sector have been underway since the end of the Second World War. But in the 1970's events have occurred to change, or at least arrest, some of these trends. Two devaluations of the dollar and poor weather conditions abroad increased the competitiveness of American farm products in the world market. The expansion of grain exports and the improvement of net farm income in 1973–74 led to a decline in the rate of outmigration from agriculture. But later in the 1970's, a decline in farm productivity growth, nagging price inflation, and good weather abroad have brought about another cost-price squeeze for American farmers. If these later trends persist, the rapid outmigration from the farm may be renewed.

Most analysts agree that the decline in the number of farms will continue, but at a slower rate than in the 1950's and 1960's. A more recent USDA estimate, however, challenges this finding. Based on the projection of historical trends, William Lin of USDA [18] estimates that there will be 2.5 million farms in 1980, 2 million farms in 1990, and 1.6 million or less by 2000. By 1990 he also estimates that about 20 percent of all farms will have annual gross sales exceeding $100,000 (up from 6 percent in 1977).

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[15] Thomas Till, and others, op. cit., pp. 5–15.

[16] James L. Walker, "Economic Development, Black Employment, and Black Migration in the Nonmetropolitan Deep South," Center for the Study of Human Resources, University of Texas, Austin, 1973, p. 40.

[17] Gerald G. Somers, "Manpower Implications of Economic Development Programs for Rural Areas," in Collette H. Moser, Manpower Planning for Jobs in Rural America, Proceedings of a Conference, Dec. 14–15, 1972, Center for Rural Manpower and Public Affairs, Michigan State University, East Lansing, 1973.

[18] As cited in Peter M. Emerson, "Public Policy and the Changing Structure of American Agriculture," Congressional Budget Office, September 1978.

Even though there is expected to be a rapid growth in the demand for agricultural products (domestic and foreign), farmworkers, according to Bureau of Labor Statistics estimates, are expected to decline from the current level of around 3 million to 1.8 million by 1985. The reduction in employment is based on rising productivity of farms.

There has also been a sizable increase in the number of younger persons entering farming. During the 1970's the number of persons self-employed in agriculture and under 35 years of age rose from 265,000 in 1970 to 358,000 in 1977, an increase of 35 percent. Even though self-employed agricultural workers under 35 years represented only slightly less than one-fourth (22.8 percent) of all self-employed agricultural workers in 1977, this percentage is up from one-seventh (14.6 percent) in 1970, and this increase took place during a period when the overall number of farm operators declined (from 1.8 to 1.6 million). The number of self-employed agricultural workers age 60 and over also declined from 1970 to 1977 (32.1 percent). The combination of more younger farmers and fewer older ones caused the median age of persons self-employed in agriculture to reverse its historic pattern and to fall from 53 years to about 50 years between 1970–77.

The gradual trend toward greater specialization in farming is expected to continue. Also, the continued general price inflation and tax laws that favor landholding over operatorship in the farm sector has led some observers to conclude that the traditional owned and operated farm will eventually disappear.[19]

One particularly bright spot for rural employment in America lies in the coal- and oil-producing areas of Appalachia and the Rocky Mountain West. Economist William Miernyk[20] has projected an increase in employment in the coal-producing industry of Appalachia of between 66,000 to 147,000 from 1975 to 1990, depending on labor productivity. The later estimate would be a doubling of the 129,000 jobs in the Appalachian coal industry in 1972.

RURAL YOUTH EMPLOYMENT[21]

In many ways the problems of rural youth cannot be separated from the problems that all rural workers have. Rural youth (particularly minority youth), suffered first from economic and varying degrees of cultural isolation. This isolation is translated into a lack of wide educational background and experience and little occupational diversity. Particularly isolated are minorities, who through discrimination and lack of training and education are least equipped to successfully enter the job market.

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[19] See, for example, Harold F. Breimyer, "Farm Policy, 1978: Recycled Old or Innovative New?" Visiting Scholar Lecture, College of Agriculture, Oklahoma State University, Mar. 7, 1978, p. 14.

[20] William H. Miernyk, "Coal and the Future of the Appalachian Economy," Appalachia, vol. 9, October–November 1975, pp. 29–35.

[21] This material is summarized from a paper by Ray Marshall, "Problems of Rural Youth," written for the National Commission for Manpower Policy, February 1976.

The poverty of rural areas often has a multiple and debilitating influence on the development of rural youth. Not only do many youths raised in a poverty situation suffer from bad health and housing, education, and sanitation, but many also suffer from the psychological handicap of feeling that their plight is solely their fault, and thus have a poor image of themselves, which at the outset limits their employment search possibilities.

The Marshall study concludes that the problems of rural youth require a systematic analysis and comprehensive remedies. Further, in Marshall's view, remedies are not to be found in rural-urban migration, but rather in a rural development strategy that would attack the major problem facing rural youth—the limited range of employment opportunities.

RURAL ECONOMIC DEVELOPMENT

The change in the composition of rural employment opportunities may be viewed as the product of natural forces, economic development programs and policies, or some combination of both. In this section, the contribution of rural economic development efforts will be examined.

Some observers argue that the key to the manpower problems of rural areas is economic development; in order for rural manpower training goals to be realized, employment opportunities must be available to those who complete training and this can be accomplished through development efforts.

The passage of the Area Redevelopment Act (ARA) in 1961 was based on these arguments. The act's objective was to create new employment opportunities in rural areas having chronic high unemployment and low income. The ARA was the first major national effort to help rural people help themselves revitalize existing communities and build new ones. A program of local economic planning, low-interest loans to private businesses, and loans and grants for public facilities necessary to assist new and expanding businesses were all a part of the ARA. In addition, technical assistance and training programs were provided. A special goal of the act was to create jobs for young people in rural areas with wages and opportunities for advancement comparable to those found in urban areas.

Somers, in his analysis of the ARA, found that relatively young ARA workers substantially improved their employment and income status because the vast majority had had nonlabor force status, essentially as high school students, prior to their ARA employment.[22] On the other hand, older workers who had been employed in declining industries prior to their ARA employment, experienced a decline in income. Overall, Somers' findings suggest that the ARA was not very successful in improving rural employment opportunities in the specific areas in which it was applied. Another study of the ARA by Hansen indicates that limited funding, small-scale planning, and a lack of attention to human resource development all contributed to the failure of ARA to meet its objectives.[23]

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[22] Somers, op. cit., pp. 106–109.

[23] Niles M. Hansen, "Cooperative Dispersed Urban Area Manpower Planning for Nonmetropolitan Populations," Center for Economic Development, University of Texas, Austin, 1975, p. 52.

Other observers of the rural situation state that rural economic development would be ineffective because efforts to "force-feed" the economic development of large lagging regions tend to be inefficient.[24] They further believe that artificially locating industry implies an indefinite subsidy as well as social costs reflecting nonoptimal location. This argument is based on the view that there are strong economic reasons why firms situate in urban areas. When several firms locate in the same area, they do so to take advantage of agglomeration economies and the concentration of innovation existing in larger cities. The business agglomeration economies include: Access to specialized services and sources of capital: a more diversified labor force, a more elastic labor supply (additional workers can be hired without significantly bidding up the wage level), and better placement services (public and private); a larger pool of managers and professionals; transport cost savings; highly efficient information and communication systems, especially where face-to-face contact is necessary; and the availability of business entertainment facilities. For households the agglomeration economies include: Greater opportunities for earning higher incomes and a wider variety of jobs, shopping, facilities; public services; and leisure and cultural amenities and housing.[25]

It is for these reasons, those skeptical of rural economic development programs argue, that growth tends to foster growth and that rural areas have a difficult time in developing. These same reasons, according to this group, help explain the migration from rural to urban areas and give justification to policies that encourage persons to migrate to large urban areas.

AN ALTERNATIVE TO ECONOMIC DEVELOPMENT—GROWTH CENTERS

As an alternative to outright economic development, some analysts have suggested growth center development. A growth center strategy is designed to encourage the development of rural areas by concentrating investment geographically in small rural towns in order to obtain the scale and agglomeration economies of large city areas, while avoiding many of the diseconomies of those areas. Typically, growth centers are seen as providing employment opportunities for individuals living in rural areas because their proximity allows commuting. They are also seen as points of attraction for migrants who otherwise have left rural areas for large, congested cities. Two types of growth centers have been identified by rural development investigators—spontaneous and induced. Of these two types of growth centers, the former develop without the benefit of special assistance or explicit policy; the latter develop as a result of direct public policy.

There have been two experiments with the growth center strategy in the United States: One by the Economic Development Administration (EDA) in the Department of Commerce and the other by the Appalachian Regional Commission (ARC). Both agencies were created in 1965 under regional development acts passed that year: the

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[24] See Marshall, op. cit., pp. 80–81.
[25] Hansen, op. cit., pp. 28–38.

Public Works and Economic Development Act (Public Law 89-136) and the Appalachian Regional Development Act (Public Law 89-4).

The EDA's objective was to assist multicounty development districts and to offer its own assistance to areas experiencing chronic economic distress. In its early years, the EDA experimented with a "worst first" strategy, giving top priority for funding to those areas experiencing the most severe difficulties in each aid category. As of October 31, 1977, the EDA had obligated $2.2 billion on over 4,600 public works projects. As of mid-1973, over one-third of EDA's funds went to towns of less than 2,500 people and over half to towns with less than 5,000 people. This diversification, however, was clearly inconsistent with the idea of clustering investment in growth centers of EDA districts where economies of scale could be realized. Because of this inconsistency, it is not possible to use the EDA experience to determine the feasibility of a growth center strategy for fostering the economic development of rural areas or demand for rural manpower.

The Appalachian Regional Development Act (ARDA), on the other hand, specifies that public investment under the act is to be concentrated in areas in Appalachia where there is the greatest potential for future growth and where the expected return on public dollars will be the greatest. The act is administered by the Appalachian Regional Commission (ARC) in which the 13 participating States and the Federal Government have equal say. The program is the largest development effort undertaken in the United States.

Evaluations of the success of the ARDA have been mixed. A 1972 study by the Advisory Commission on Intergovernmental Relations examined the concentration of nonhighway Appalachian program investments between 1965 and 1970 by State and by growth area.[26] For the region as a whole, 62.1 percent of all investments were made in those areas determined to offer the highest growth potential, while 13.7 percent went to those areas determined to offer no growth potential. The study also showed that the money was being concentrated geographically. Ten percent of the region's counties received 42.5 percent of the nonhighway funds spent by the Commission from 1965 to 1970; however, only 0.9 percent went to areas with a population of less than 10,000.

Niles Hansen, in a 1969 study, criticized the designation of a large number of areas in Appalachia as having a significant potential for growth.[27] He argued that the entire region did not offer much promise for economic development. ARC, he noted, designated 125 areas with "significant potential for growth." Since each of the region's 60 districts had at least one center so designated, it implied that nearly all of Appalachia was a promising growth area. Such a determination is inconsistent with the basic growth center strategy.

Aside from the political problems that exist in implementing a growth center strategy, an even more fundamental question is whether such a strategy will work at all unless sufficient investments are made in human resources. More recent evaluations of the ARC indicate that there has been a considerable shift in favor of human resource projects in terms of actual project expenditures.[28]

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[26] Advisory Commission on Intergovernmental Relations, "Multistate Regionalism," Washington D.C., U.S. Government Printing Office, 1972, p. 30.

[27] Niles M. Hansen, "Urban and Regional Dimensions of Manpower Policy," University of Kentucky, Lexington, 1969.

The effects of the economic development efforts of the ARC on the demand for rural labor are still inconclusive. The ARC has not been able to do very much to stimulate the demand for rural workers within Appalachia. On the other hand, the ARC may have achieved some success in raising the skill levels of these rural workers so that they can effectively compete for job opportunities outside the region.

RECENT RURAL ECONOMIC DEVELOPMENT EFFORTS

The most current rural development legislation was the Rural Development Act (RDA) of 1972. The act, administered by the U.S. Department of Agriculture, contains a number of provisions designed to promote community development, including planning grants, loans, and loan guarantees for communities, businesses, and individuals.

Ray Marshall[29] noted, however, that although the RDA could be very significant in creating new jobs, it may not realize its potential since it lacks an adequate conceptual framework for a rural development policy. Gerald Somers, on the other hand, was more hopeful since the RDA requires the establishment of goals for employment and that the progress in attaining this goal be reported annually. The overall success or failure of the RDA, however, is still open to question.

RURAL EMPLOYMENT AND TRAINING PROGRAMS

Instead of rural economic development, many analysts of the rural employment scene have suggested employment and training programs as the appropriate policy for abating rural underemployment and unemployment. The Nation's current employment and training policies date from the passage of the Manpower Development and Training Act of 1962 (MDTA). Initially, MDTA programs were directed toward retraining male household heads who lost their jobs because of "automation." But as the unemployment rate fell, emphasis rather quickly shifted to the disadvantaged and the Economic Opportunity Act of 1964 was designed to deal with the plight of specific labor force groups. In the late 1960's the twin themes of retraining and specific programs for specific groups dominated manpower policies, resulting in a proliferation of programs and increased spending on employment and training programs.

In the early 1970's these programs were reevaluated. Critics of the job training efforts pointed out their expense and the difficulties in placing those trained when the unemployment rate was high. In addition, very few of MDTA's programs could prove that they had produced substantial social benefits, and an even smaller number could demonstrate positive rates of return which lasted for any length of time. Consequently, emphasis switched from retraining the supply of workers to job-creation programs where demand for labor was to be increased to absorb the excess supply. The Emergency Employment

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[28] Niles M. Hansen, "Cooperative Dispersed Urban Area Manpower Planning for Nonmetropolitan Populations," Center for Economic Development, University of Texas, Austin, 1975, pp. 88–89.

[29] Ray Marshall, "Rural Workers," p. 85.

Act of 1971 (EEA) was the first postdepression program of public service employment, designed to provide transition jobs and needed public services in times of high unemployment.

EEA's success and the specter of lingering unemployment led to the passage of the Comprehensive Employment and Training Act of 1973 (CETA), which consolidated all of the previously enacted manpower development and training programs. CETA was based on local participation in federally sponsored programs and called for manpower programs to be "decategorized and decentralized." The 1973 act remains the basic legislative framework governing national manpower policy; the public service employment provisions have been amended and expanded on several occasions.

In spite of the provisions of CETA and the earlier legislation, rural areas have tended to receive minimal attention in employment policy formulation. A Congressional Research Service study done in 1973 found that during the 1960's, when manpower programs were developed for specific groups of unemployed and disadvantaged individuals, rural program participation was less than the rural share of the target population in 10 of 12 manpower programs.[30] The only program with significant rural participation was Operation Mainstream, a public service employment program which accounted for under 2 percent of training outlays in fiscal 1972.

Passage of the Comprehensive Employment and Training Act (CETA) in 1973 increased local area options for expending manpower funds, but did not provide the funds necessary to exercise those options in rural areas. Under the Emergency Employment Act of 1971, rural counties received only 10 percent of the available funds in fiscal 1972, in spite of the fact that they contained 27 percent of the unemployed (1970).[31] As a result of the enactment of CETA, the rural funding share increased, but rural counties received less than the 60-percent share of title II public service employment funds (1974) they would have been entitled to if funds were granted on the basis of unemployment or population shares.[31] Although allocations for rural areas have increased proportionately over the past few years, in the eyes of many these increases have not been large enough, so that rural areas still tend to be underfunded in light of their relative needs.

The reasons for the underfunding may not all be intentional. Many employment and training programs allocate funds on the basis of local labor force statistics (unemployment rates, primarily). At the local level, these statistics, derived largely from unemployment insurance data, decrease in accuracy as the size of the sample population decreases.[32] Thus, if rural labor force data are underestimated, then rural funding needs will likewise be underestimated.[33]

In addition to the allocation criteria problem, rural areas also tend to face administrative and operational hurdles. They have no liaison offices in Washington and, therefore, are less aware of programs and are limited in their ability to apply for funds at the outset of a program's operation.

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[30] Raymond Schmitt, "Manpower Training and Employment Programs Serving Rural America," Multilith, Congressional Research Service, Washington, D.C., 1973, p. 4.

[31] Philip Martin, "Public Service Employment and Rural America," American Journal of Agricultural Economics, vol. 59, No. 2, May 1977, pp. 276–82.

[32] See Martin Ziegler, "Efforts To Improve Estimates of State and Local Unemployment," Monthly Labor Review, November 1977, Washington, D.C., pp. 12–18.

[33] Janet L. Norwood, "Reshaping a Statistical Program to Meet Legislative Priorities," Monthly Labor Review, November 1977, Washington, D.C., pp. 6–11.

Many of the more recent employment and training programs provide (at least temporary) public sector employment opportunities. But public employees are better educated than the unemployed rural workers; in 1970, only 18 percent of all Government workers were not high school graduates, but 48 percent of the rural population 25 and older were high school dropouts.[34] The bulk of Federal assistance to rural areas has been in the form of public works projects which offer few job opportunities to low-skilled workers and even fewer job prospects for participants.

Title III of CETA does, however, establish two programs which are primarily rural in nature. These are the Native American employment and training programs and the migrant and seasonal farmworker employment and training programs. In fiscal year 1975, an estimated 15,000 persons received services under the 70 grants and contracts supported by the migrant program. Under CETA, funding for migrants and seasonal farmworkers has increased significantly and has been incorporated in the legislation as a continuing program with specified funding levels.

The Job Corps (CETA, title IV) provides residential training for severely disadvantaged youth. It is estimated that about 14 percent of the 45,000 youth enrolled annually come from towns of under 2,500 population. In fiscal year 1975, of the 60 Job Corps training centers, 27 were Civilian Conservation Centers located in rural areas.

Two older worker programs (CETA, title II) provide part-time employment opportunities for unemployed low-income persons with poor employment prospects. In fiscal year 1975, more than 10,500 residents of rural areas were served under this program.

The U.S. Employment Service, through the affiliated State employment security agencies, is responsible for a wide range of services for rural residents including job placement services. Data for fiscal year 1977 show that migrant and seasonal farmworkers received proportionately more service than other applicants, being placed at nearly twice the rate of other Employment Service job applicants.

In summary, it can be argued that rural areas do not appear to be receiving their appropriate share of funds for instituting employment and training programs to reduce unemployment due to allocative, operational, and outcome deficiencies. What may be necessary are separate employment and training policies for rural areas. It has been noted that the hard-core rural unemployed do not have the skills (education) required for most of the jobs available in rural governmental units. For this reason, public employment programs which provide skill training have been identified as one of the keys for overcoming rural poverty. Similarly, if rural labor markets respond differentially in the course of the business cycle (e.g., rural unemployment rates may increase slower than urban rates and peak at different times), separate or extended countercyclical programs may be appropriate. All in all, rural and urban unemployment problems may be highly dissimilar and require independent employment training programs.

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[34] Of course, public service jobs could be utilized which require a lower educational level.

WAGES, UNIONIZATION, AND THE DEMAND FOR RURAL LABOR

There has been a dramatic shift in the demand for labor in agriculture, forestry, and mining due to the substitution of capital equipment for labor. Those individuals remaining employed in these industries have received much higher wages because of the increase in productivity brought about by the use of capital equipment, but at the same time, this efficiency has significantly reduced the number of workers demanded.

Individuals who find themselves in this rural pool of surplus labor either migrate to urban areas in search of more attractive employment opportunities, or remain in the area and take whatever work they can find. Typically, the better educated and young are the ones who migrate from rural areas. Those that remain compete for the few jobs available, tending to depress wage rates. The existence of these low-wage-rate areas has attracted industries to rural areas that require large amounts of low-skilled labor. Till, Thompson, and Marshall note in their study that the major causes of the manufacturing boom taking place in the nonmetropolitan South have been a low-wage labor force, an abundant labor supply, and the absence or relative weakness of unions.[35] New firms have been reluctant to locate in those rural areas where high-wage unionized plants exist; for example, coal mining in eastern Kentucky and paper mills in central Louisiana. The location of labor-intensive firms in rural areas transforms the agricultural work force into one accustomed to factory discipline. After this takes place, medium-wage oriented firms that are more capital intensive are attracted to the area. As a result, a conflict may develop between the medium-wage and low-wage plants, since the latter is faced with increasing difficulty in filling its positions. Unionization of the labor force has typically taken place as this development proceeds, but the strength of unions in the South is less than in the North. Even though union membership increased by 80 percent from 1953 to 1974 in the South (the national average was 38 percent), this growth did not keep pace with employment growth (92 percent over the time period). Hence, in spite of increases in union membership in the South, the rate of unionization declined from 1953 to 1974.

To the extent that unions are successful in raising the wage rate above levels that would exist in the absence of unionization, the demand for rural labor may be negatively affected. A reduced demand for labor usually occurs if final product demand declines as a result of higher prices, if nonlabor inputs are substituted for labor as a result of higher labor prices, or if industry relocates to obtain nonunionized labor elsewhere. It is expected that in the future, unions will continue to increase their membership in rural areas, but that these unions will not have the strength of unions in urban areas. Historically, unions have not been very successful in organizing the labor intensive, competitive, and low-wage industries typically found in rural areas. The surplus of labor in rural areas, the value systems of rural workers, the long distances between rural worker residences, and rural power structures all make unionization difficult.[36]

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[35] Till, Thompson, and Marshall, op. cit., pp. 9–10.
[36] See Ray Marshall, op. cit., pp. 161–163.

Marshall concludes that the unionization of agricultural workers will increase, but at a slow rate.[36] He also suggests that agricultural unions will be more effective in dealing with public policy as opposed to wages since it will be easier for them to gain benefits for their members through policy processes than to raise wages through traditional collective-bargaining procedures.

RURAL AMERICA AND DEMOGRAPHIC TRENDS

In the early 1970's, for the first time in the 20th century, rates of population growth in nonmetropolitan areas exceeded those of metropolitan areas. Two emerging demographic trends have become apparent in the 1970's: First, the onset of population decline in many metropolitan areas; and second, the revival of population growth in areas remote from large cities.

For the period 1970–77, nonmetropolitan counties grew by 10.7 percent, while metropolitan counties grew by 4.4 percent (metropolitan counties experienced zero growth from 1975 to 1977). Nonmetropolitan counties had a net annual average outmigration of 300,000 per year in the 1960's, while in the 1970's they were gaining an average of more than 322,000 people per year. The most dramatic reversal of outmigration has occurred in those areas furthest from large cities; thus, the demographic shift is not just a continuation of the flight to the suburbs. A combination of declined urban inmigration, a retention of rural populations and a "return to the country" desire among city dwellers have all contributed to the recent faster nonmetropolitan growth rates.

Geographically, rural growth has been most pronounced in four areas: (a) A belt stretching across the South from the Ozark Mountains to the Ouachita area of Texas; (b) the upper Great Lakes region; (c) the Rocky Mountain region; and (d) the Southern Appalachian coal fields.

In the 1960's, some nonmetropolitan areas, especially in the South, grew substantially. A major factor accounting for nonmetropolitan growth in the 1960's was manufacturing. As Calvin Beale concluded:

> The decentralization trend in U.S. manufacturing has been a major factor in transporting the rural and small town economy, especially in the upland parts of the South. From 1962–69 half of all U.S. nonmetropolitan job growth was in manufacturing.[37]

However, while manufacturing may have been a major catalyst to rural growth, in more recent years manufacturing growth has not been sustained. From 1970–76, jobs in manufacturing accounted for 16.2 percent of all nonmetropolitan job growth, while it accounted for 50 percent of nonmetropolitan job growth in the period 1962-69. The major areas of rural job growth in the 1970's have been in trade and non-goods-producing sectors.

A second important factor in nonmetropolitan growth has been the increasing importance of recreation and retirement communities, particularly outside of the Southwest and Florida. Calvin Beale has concluded: "The very influx of people into attractive areas for noneconomic reasons can stimulate follow-on types of development—a case of supply creating demand."[38]

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[36] See p. 91.

[37] Calvin L. Beale, "Renewed Growth in Rural Communities," The Futurist, vol. 9, August 1975, p. 198.

It would be incorrect, however, to assume that the growth of rural recreational communities offers great improvement in job opportunities of rural residents. Niles Hansen has found that: "Recreation business tends to be seasonal and generally creates only low-skilled and low-paid jobs.[39]

There are many factors which have caused the changed growth rates between metropolitan and nonmetropolitan areas; some of these have already been discussed. However, there are also other reasons for Americans moving to and staying in rural areas. First, there is some evidence of a change in Americans' attitudes and preferences, which may not be accounted for by economic considerations. Changed attitudes may have come out of the environment and ecological movements, the intensification of dissatisfaction with urban living, and the antimaterialism of the youth "revolution." Also influencing the population shift is the narrowing in the gaps between urban and rural living standards.

These changing demographic trends have only recently been noticed and it is far too early to predict what exactly these living patterns will mean to rural America. It is clear, however, that manufacturing can play a major part in rural growth. Further, growth itself can cause more growth.

The extent to which the rural poor, lacking in education and job training, will be in on the benefits of population shifts and rural growth remains to be seen.

SUMMARY AND CONCLUSIONS

This paper has summarized and reviewed some of the basic trends affecting rural America today. Rural America has far brighter prospects for economic expansion than many of the Nation's urban centers. However, the likelihood is great that without effective policies of government and private industry aimed at the least trained and undereducated rural citizens and at attracting jobs for those citizens, a large number of rural workers will not be affected by rural growth. In all likelihood, in the absence of such policies, most new jobs will go to the more experienced and trained workers and the well-educated new residents of rural communities, leaving the young, the poorly educated older worker, and the ill-trained unemployed or underemployed.

Two major trends most affect rural areas today: The decentralization of manufacturing, and the inmigration of people. The decentralization of manufacturing into nonmetropolitan and rural areas will provide jobs for the semiskilled work force, but not necessarily for all rural workers. The emergent demographic shifts offer the prospects of new rural growth, bringing new industries, new construction, and an array of services to meet the new population's needs.

The evidence reviewed in this paper supports the following conclusions about employment prospects for rural Americans:

(1) Employment in agriculture may continue at approximately its present level, or as is more likely, employment in agriculture will de-

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[38] Calvin L. Beale, op. cit., p. 199.

[39] Niles M. Hansen, "The Future of Nonmetropolitan America," D.C. Health, Lexington, Mass., 1973.

cline as increased productivity more than offsets increases in demand for agricultural products.

(2) Manufacturing firms may continue to locate to rural areas, but at a slower rate than in the 1960's. However, in the past new industries often attracted skilled workers from urban areas and "skimmed" the best rural workers, leaving many of the local work force untouched by the new industry.

(3) Rural youth are facing situations in which there are few occupational choices. Many of those who remain in rural labor markets often lack the depth of education and training and cultural interaction that would help them get jobs once they become available. Young people are often the most trainable and most adaptable segment of the population; however, without new opportunities and comprehensive training and educational efforts, they may be severely handicapped. Further, the evidence suggests there is a need to attract additional industries to rural areas, industries that will employ those rural residents most in need of jobs.

(4) Older rural workers are often the ones least equipped to learn new jobs; they seldom migrate to locations offering new opportunities and generally have poor prospects of finding employment. Several manpower programs have been aimed at older citizens; however, many of these programs have provided public service jobs rather than training for new occupations.

The evidence suggests that while the prospects for rural economic growth look good, in the absence of policies to increase the productivity of rural workers and to insure employment opportunities once they are trained, many rural workers will not be affected by rural growth.

TABLE 1.—SELECTED CHARACTERISTICS OF COUNTIES WITHIN METROPOLITAN AND NONMETROPOLITAN COUNTY GROUPS[1]

Item	Total	Metropolitan counties							Nonmetropolitan counties						
		Total	Greater			Medium	Lesser	Total	Urbanized		Less urbanized		Totally rural	
			Total	Core	Fringe				Adjacent	Nonadjacent	Adjacent	Nonadjacent	Adjacent	Nonadjacent
Number of counties	3,097	612	175	48	127	258	179	2,485	191	137	564	721	246	626
Population, 1975 (thousands)	213,038.8	1[illegible],147.2	86,320.1	59,525.5	26,790.5	48,984.3	18,842.8	58,891.6	15,006.7	8,125.6	14,198.3	14,355.6	2,526.5	4,678.9
Growth rate, 1970-75 (percent)	4.8	4.2	2.2	0.6	5.9	6.3	8.0	6.7	7.4	6.3	6.7	5.6	8.6	7.0
Population, 1970 (thousands)	203,212.9	147,996.3	84,464.8	59,168.5	25,296.3	46,078.2	17,453.3	55,216.5	13,966.8	7,644.3	13,307.4	13,598.0	2,3[illegible]5.4	4,374.7
Percent of United States	100.0	72.8	41.6	29.1	12.4	22.7	8.6	27.2	6.9	3.8	6.5	6.7	1.1	2.2
Average per county	65,616	241,824	482,656	1,232,677	199,184	178,598	97,505	22,220	73,125	55,798	23,595	18,860	9,453	6,988
Growth rate, 1960-70 (percent)	13.3	17.0	17.1	11.3	33.5	17.5	15.4	4.4	12.3	7.8	4.0	−0.5	0.4	−4.4
Net migration rate, 1960-70 (percent)	1.7	4.7	5.4	.5	19.3	4.5	1.9	−5.6	1.0	−5.2	−5.2	−9.7	−7.8	−12.2
Median family income, 1969 (dollars)	9,590	10,4[illegible]	11,034	10,591	11,990	9,838	8,976	7,615	8,701	8,086	7,456	7,094	6,412	6,142
Median family indome, 1959 (dollars)	5,660	6,21[illegible]	6,620	6,481	6,998	5,816	5,355	4,278	5,135	4,820	4,053	3,920	3,270	3,245
Growth rate, 1959-69 (percent)	69.4	67.5	66.7	63.4	71.3	69.2	67.6	78.0	69.4	67.8	84.0	81.0	96.1	89.3
Percentage distribution of counties within group:														
Census region:														
Northeast	7.0	16.3	21.7	33.3	17.3	19.0	7.3	4.7	20.4	5.8	5.5	3.0	2.0	1.9
North central	34.1	29.1	35.4	25.0	39.4	24.4	29.6	35.3	29.8	30.7	34.6	36.6	22.0	42.3
South	44.8	44.1	29.7	18.8	33.8	48.8	51.4	44.9	36.1	41.6	52.8	43.6	63.4	35.6
West	14.1	10.5	13.1	22.9	9.4	7.8	11.7	15.1	13.6	21.9	7.1	16.8	12.6	20.1
Per capita income, 1969:														
Lowest decile	10.0	1.8	0	0	0	1.9	3.4	12.0	1.6	2.2	9.9	9.4	21.5	18.5
2nd to 5th decile	40.0	15.4	6.8	0	9.4	18.2	19.6	46.1	24.6	26.3	47.5	49.5	52.4	49.2
6th to 9th decile	40.0	48.4	36.6	22.9	41.7	48.1	60.3	37.9	63.9	67.2	40.2	38.6	22.4	26.8
Highest decile	10.0	34.5	56.6	77.1	48.8	31.8	16.8	4.0	9.9	4.4	2.3	2.5	3.7	5.4
Population, 1970														
100,000 and over	11.1	51.1	63.4	100.0	49.6	45.3	47.5	1.3	14.6	2.9	0	0	0	0
50,000 to 99,999	10.8	19.0	14.8	0	20.5	19.4	22.3	8.8	62.3	53.3	2.6	1.8	0	0
25,000 to 49,999	18.2	17.0	14.3	0	19.7	22.5	11.7	18.5	23.0	42.3	35.5	20.5	2.0	.6
10,000 to 24,999	32.1	9.3	6.3	0	8.7	10.1	11.2	37.7	0	1.4	55.0	58.1	35.4	19.0
5,000 to 9,999	17.5	2.9	.6	0	.8	2.7	5.6	21.1	0	0	6.0	18.2	44.7	39.9
2,500 to 4,999	6.8	.5	0	0	0	0	1.7	8.4	0	0	.9	1.4	11.4	26.4
Less than 2,500	3.4	.2	.6	0	.8	0	0	4.2	0	0	0	0	6.5	14.1

[1] The 10-fold county classification system is explained in Fred K. Hines, David L. Brown, and John M. Zimmer, "Social and Economic Characteristics of the Population in Metro and Nonmetro Counties 1970," AER-272, Washington: Economic Research Service, U.S. Department of Agriculture, March 1975.

Source: U.S. Bureau of the Census, Census of Population, 1970 and Current Population Reports, series P-26. Economics, Statistics, and Cooperatives Service, U.S. Department of Agriculture, Federal Outlays in Fiscal 1976: A Comparison of Metropolitan and Nonmetropolitan Areas, Rural Development Report No. 1, August 1978.

TABLE A-1.—EMPLOYMENT STATUS OF THE NONINSTITUTIONAL POPULATION 16 YR AND OVER, BY SEX: ANNUAL AVERAGES, 1947-77

Sex and year	Total noninstitutional population	Total labor force, including Armed Forces		Civilian labor force						Not in labor force
		Number	Percent of noninstitutional population	Total	Employed			Unemployed		
					Total	Agriculture	Nonagricultural industries	Number	Percent of labor force	
Female:										
1947	52,450	16,683	31.8	16,664	16,045	1,248	14,797	619	3.7	35,677
1948	53,088	17,351	32.7	17,335	16,618	1,271	15,345	717	4.1	35,737
1949	53,689	17,806	33.2	17,788	16,723	1,314	15,409	1,065	6.0	35,883
1950	54,293	18,412	33.9	18,389	17,340	1,159	16,179	1,049	5.7	35,881
1951	54,933	19,054	34.7	19,016	18,182	1,193	16,987	834	4.4	35,879
1952	55,575	19,314	34.8	19,269	18,570	1,112	17,456	698	3.6	36,261
1953	56,353	19,429	34.5	19,382	18,750	1,008	17,740	632	3.3	36,924
1954	56,965	19,718	34.6	19,678	18,490	1,006	17,484	1,188	6.0	37,247
1955	57,610	20,584	35.7	20,548	19,550	1,184	18,364	998	4.9	37,026
1956	58,264	21,495	36.9	21,461	20,422	1,244	19,172	1,039	4.8	36,769

1957	58,983	21,765	36.9	21,732	20,714	1,123	19,591	1,018	4.7	37,218
1958	59,723	22,149	37.1	22,118	20,613	990	19,623	1,504	6.8	37,574
1959	60,569	22,516	37.2	22,483	21,164	1,033	20,131	1,320	5.9	38,053
1960	61,615	23,272	37.8	23,240	21,874	986	20,887	1,366	5.9	38,343
1961	62,517	28,838	38.1	23,806	22,030	902	21,187	1,717	7.2	38,679
1962	63,355	24,047	38.0	24,014	22,525	875	21,651	1,488	6.2	39,308
1963	63,527	24,736	38.3	24,704	23,105	878	22,227	1,598	6.5	39,791
1964	65,668	25,443	38.7	25,412	23,831	832	23,000	1,581	6.2	40,225
1965	66,763	26,232	39.3	26,200	24,748	814	23,934	1,452	5.5	40,531
1966	67,829	27,333	40.3	27,299	25,976	736	25,240	1,324	4.8	40,496
1967	69,003	28,395	41.2	28,360	26,893	680	26,212	1,468	5.2	40,608
1968	70,217	29,242	41.6	29,204	27,807	660	27,147	1,397	4.8	40,978
1969	71,476	30,551	42.7	30,512	29,084	643	28,441	1,428	4.7	40,924
1970	72,774	31,560	43.4	31,520	29,667	601	29,066	1,853	5.9	41,214
1971	74,084	32,132	43.4	32,091	29,875	598	29,277	2,217	6.9	41,952
1972	75,911	33,320	43.9	33,277	31,082	633	30,439	2,205	6.6	42,591
1973	77,242	34,561	44.7	34,510	32,446	619	31,827	2,064	6.0	42,681
1974	78,575	35,892	45.7	35,825	33,417	592	32,825	2,408	6.7	42,683
1975	79,954	37,087	46.4	36,998	33,553	579	32,973	3,445	9.3	42,868
1976	81,309	38,520	47.4	38,414	35,095	582	34,513	3,320	8.6	42,789
1977	82,577	40,067	48.5	39,952	36,685	605	36,080	3,267	8.2	42,510

Source: Employment and Training Administration, U.S. Department of Labor, Employment and Training Report of the President, 1978.

TABLE A-17.—EMPLOYED PERSONS 16 YR AND OVER, BY TYPE OF INDUSTRY AND CLASS OF WORKER: ANNUAL AVERAGES, 1948–77

Year	Total employed	Agriculture				Nonagricultural industries						
							Wage and salary workers					
		Total	Wage and salary workers	Self-employed workers	Unpaid family workers	Total	Total	Private household¹	Government	Other	Self-employed workers	Unpaid family workers
Number employed (thousands):												
1948	58,344	7,628	1,645	4,664	1,318	50,714	44,221	1,619	5,261	37,340	6,109	385
1949	57,651	7,658	1,728	4,609	1,321	49,992	43,444	1,657	5,411	36,377	6,167	380
1950	58,920	7,160	1,630	4,340	1,190	51,758	45,354	1,862	5,789	37,704	6,018	383
1951	59,962	6,726	1,547	4,014	1,163	53,234	47,047	1,910	6,057	39,079	5,805	383
1952	60,254	6,500	1,437	3,933	1,129	53,749	47,719	1,784	6,460	39,473	5,613	417
1953	61,181	6,259	1,375	3,815	1,068	54,919	48,770	1,868	6,539	40,363	5,740	409
1954	60,110	6,205	1,343	3,816	1,043	53,903	47,633	1,791	6,617	39,225	5,839	431
1955	62,171	6,450	1,601	3,726	1,123	55,722	49,350	2,054	6,821	40,484	5,851	511
1956	63,802	6,284	1,580	3,563	1,142	57,512	51,057	2,152	6,915	41,991	5,896	558
1957	64,071	5,948	1,583	3,301	1,065	58,123	51,509	2,102	7,176	42,230	6,011	602
1958	63,036	5,584	1,564	3,081	941	57,450	50,761	2,200	7,471	41,089	6,102	588
1959	64,630	5,563	1,582	3,020	963	59,065	52,265	2,228	7,686	42,352	6,222	579
1960	65,778	5,459	1,762	2,796	901	60,318	53,417	2,183	7,935	43,299	6,303	598
1961	65,746	5,200	1,629	2,738	832	60,545	53,600	2,234	8,176	43,191	6,308	639
1962	66,702	4,944	1,561	2,609	773	61,759	54,963	2,216	8,691	44,056	6,193	603
1963	67,762	4,686	1,564	2,427	696	63,075	56,388	2,226	9,082	45,080	6,114	573
1964	69,305	4,523	1,469	2,358	696	64,781	58,027	2,262	9,350	46,415	6,180	576
1965	71,088	4,361	1,387	2,297	678	66,728	60,031	2,166	9,608	48,257	6,097	600
1966	72,895	3,979	1,266	2,136	578	68,916	62,361	2,069	10,322	49,970	5,990	564
1967	74,372	3,844	1,301	1,996	547	70,527	64,848	1,966	11,146	51,737	5,174	506
1968	75,920	3,817	1,281	1,985	550	72,103	66,517	1,916	11,590	53,011	5,102	485
1969	77,902	3,606	1,179	1,896	531	74,296	68,527	1,826	12,023	54,678	5,253	517
1970	78,627	3,462	1,153	1,810	499	75,165	69,446	1,754	12,424	55,268	5,217	502
1971	79,120	3,387	1,161	1,748	479	75,732	69,902	1,693	12,764	55,445	5,309	521
1972	81,702	3,472	1,216	1,789	467	78,230	72,381	1,654	13,329	57,398	5,332	517
1973	84,409	3,452	1,254	1,776	423	80,957	74,995	1,543	13,562	59,889	5,426	536
1974	85,936	3,492	1,349	1,752	391	82,443	76,325	1,392	14,002	60,931	5,634	485
1975	84,783	3,380	1,280	1,715	386	81,403	75,298	1,348	14,525	59,426	5,626	478
1976	87,485	3,297	1,318	1,637	342	84,188	78,041	1,358	14,953	61,731	5,698	468
1977	90,546	3,244	1,330	1,570	343	87,301	80,804	1,376	15,153	64,275	6,005	492

Percent distribution:												
1948	100.0	13.1	2.8	8.0	2.3	86.9	75.8	2.8	9.0	64.0	10.5	0.7
1949	100.0	13.3	3.0	8.0	2.3	86.7	75.4	2.9	9.4	63.1	10.7	.7
1950	100.0	12.2	2.8	7.4	2.0	87.8	77.0	3.2	9.8	64.0	10.2	.7
1951	100.0	11.2	2.6	6.7	1.9	88.8	78.5	3.2	10.1	65.2	9.7	.6
1952	100.0	10.8	2.4	6.5	1.9	89.2	79.2	3.0	10.7	65.5	9.3	.7
1953	100.0	10.2	2.2	6.2	1.7	89.8	79.7	3.1	10.7	66.0	9.4	.7
1954	100.0	10.3	2.2	6.3	1.7	89.7	79.2	3.0	11.0	65.3	9.7	.7
1955	100.0	10.4	2.6	6.0	1.8	89.6	79.4	3.3	11.0	65.1	9.4	.8
1956	100.0	9.9	2.5	5.6	1.8	90.1	80.0	3.4	10.8	65.8	9.2	.9
1957	100.0	9.3	2.5	5.2	1.7	90.7	80.4	3.3	11.2	65.9	9.4	.9
1958	100.0	8.9	2.5	4.9	1.5	91.1	80.5	3.5	11.9	65.2	9.7	.8
1959	100.0	8.6	2.4	4.7	1.5	91.4	80.9	3.4	11.9	65.5	9.6	.9
1960	100.0	8.3	2.7	4.2	1.4	91.7	81.2	3.3	12.1	65.8	9.6	.9
1961	100.0	7.9	2.5	4.2	1.3	92.1	81.5	3.4	12.4	65.7	9.6	1.0
1962	100.0	7.4	2.3	3.9	1.2	92.6	82.4	3.3	13.0	66.0	9.3	.9
1963	100.0	6.9	2.3	3.6	1.0	93.1	83.2	3.3	13.4	66.5	9.0	.8
1964	100.0	6.5	2.1	3.4	1.0	93.5	83.7	3.3	13.5	67.0	8.9	.8
1965	100.0	6.1	2.0	3.2	1.0	93.9	84.4	3.0	13.5	67.9	8.6	.8
1966	100.0	5.5	1.7	2.9	.8	94.5	85.5	2.8	14.2	68.6	8.2	.8
1967	100.0	5.2	1.7	2.7	.7	94.8	87.2	2.6	15.0	69.6	7.0	.7
1968	100.0	5.0	1.7	2.6	.7	95.0	87.6	2.5	15.2	69.8	6.7	.6
1969	100.0	4.6	1.5	2.4	.7	95.4	88.0	2.3	15.4	70.2	6.7	.7
1970	100.0	4.4	1.5	2.3	.6	95.6	88.3	2.2	15.8	70.3	6.6	.6
1971	100.0	4.3	1.5	2.2	.6	95.7	88.3	2.1	16.1	70.1	6.7	.7
1972	100.0	4.2	1.5	2.2	.6	95.8	88.6	2.0	16.3	70.3	6.5	.6
1973	100.0	4.1	1.5	2.1	.5	95.9	88.8	1.8	16.1	71.0	6.5	.6
1974	100.0	4.1	1.6	2.0	.5	95.9	88.8	1.6	16.3	70.9	6.6	.6
1975	100.0	4.0	1.5	2.0	.5	96.0	88.8	1.6	17.1	70.1	6.6	.6
1976	100.0	3.8	1.5	1.9	.4	96.2	89.2	1.6	17.1	70.6	6.5	.5
1977	100.0	3.6	1.5	1.7	.4	96.4	89.2	1.5	16.7	71.0	6.6	.5

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[1] Differs from the occupation group of private houdehold workers. These figures relate to wage and salary workers in private households regardless of type of occupation, while the occupational data relate to persons whose occupational category is service worker in private households, regardless of class of worker status.

Source: Employment and Training Report of the President, 1978, U.S. Department of Labor.

TABLE 7.—NUMBER OF HIRED FARMWORKERS BY RACE, AGE, DURATION OF FARMWORK; AVERAGES 1964–66 AND 1974–76

Item	3-year averages (thousands)		Percentage change	Percent of total	
	1964–66	1974–76		1964–66	1974–76
Total	3,087	2,713	−12	100	100
Race:[1]					
Whites	2,186	2,279	−4	71	84
Blacks and others	901	434	[2] −52	29	16
Age:					
14 to 17 yr	924	843	−9	30	31
18 to 24 yr	657	740	[2] +13	21	[2] 27
25 to 44 yr	741	633	[3] −15	24	23
45 to 64 yr	614	367	[2] −40	20	[2] 14
65 yr and over	151	131	−13	5	5
Region:					
Northeast	265	240	−9	9	9
North central	570	718	[2] +26	18	[2] 26
South	1,566	1,087	[2] −31	51	[2] 40
West	686	669	−2	22	25
Duration of farmwork:					
Less than 25 days	1,254	1,165	−7	41	43
25 to 74 days	816	609	[2] −25	26	22
75 to 149 days	383	325	−15	12	12
150 to 249 days	273	264	−3	9	10
250 days and over	361	352	−2	12	13

[1] Data were not available for Hispanic hired farmworkers for these periods.

[2] Changes in number or distribution between 1964–66 and 1974–76 are significantly different at the 95 percent confidence level.

[3] Changes in number or distribution between 1964–66 and 1974–76 are significantly different at the 90 percent confidence level.

Source: Economics, Statistics, and Cooperatives Service, U.S. Department of Agriculture, "The Hired Farm Working Force of 1976," Agricultural Economic Report No. 405, July 1978.

SOURCES OF U.S. CENSUS MATERIALS

Industry

Table 91: U.S. Bureau of the Census, U.S. Census of Population: 1960; Characteristics of the Population, U.S. Summary, PC(1)-C, 1963

Table 103: ———, U.S. Census of Population: 1970; General Social and Economic Characteristics, U.S. Summary, PC(1)-C1, June 1972

Occupation

Table 126: ———, U.S. Census of Population: 1950; Characteristics of the Population, U.S. Summary, P-C, 1963

Table 222: ———, U.S. Census of Population: 1970; Detailed Characteristics, U.S. Summary, PC(1)-D1, February 1973.

TABLE 91.—INDUSTRY GROUP OF EMPLOYED PERSONS, BY COLOR, FOR THE UNITED STATES, URBAN AND RURAL: 1960

[See text for source of data. Percent not shown where less than 0.1]

Industry group and color	United States	Urban	Rural nonfarm	Rural farm	Percent distribution: United States	Percent distribution: Urban	Percent distribution: Rural nonfarm	Percent distribution: Rural farm
ALL CLASSES								
Total employed	64,639,247	47,390,390	12,575,855	4,673,002	100.0	100.0	100.0	100.0
Agriculture	4,256,734	492,792	950,050	2,813,892	6.6	1.0	7.6	60.2
Forestry and fisheries	93,150	34,978	50,314	7,858	.1	.1	.4	.2
Mining	654,006	297,635	324,146	32,225	1.0	.6	2.6	.7
Construction	3,815,937	2,612,891	1,028,572	174,474	5.9	5.5	8.2	3.7
Manufacturing	17,513,086	13,348,151	3,603,362	561,573	27.1	28.2	28.7	12.0
Furniture, and lumber and wood products	1,067,252	497,118	479,601	90,533	1.7	1.0	3.8	1.9
Primary metal industries	1,244,922	991,941	229,457	23,524	1.9	2.1	1.8	.5
Fabricated metal industries (including not specified metal)	1,291,709	1,063,240	201,338	27,131	2.0	2.2	1.6	.6
Machinery, except electrical	1,568,035	1,235,938	290,654	41,443	2.4	2.6	2.3	.9
Electrical machinery, equipment, and supplies	1,487,412	1,218,376	235,207	33,829	2.3	2.6	1.9	.7
Motor vehicles and motor vehicle equipment	841,861	685,930	132,720	23,211	1.3	1.4	1.1	.5
Transportation equipment, except motor vehicle	976,837	809,425	148,689	18,723	1.5	1.7	1.2	.4
Other durable goods	1,370,661	1,059,016	278,046	33,599	2.1	2.2	2.2	.7
Food and kindred products	1,822,477	1,390,274	358,070	74,133	2.8	2.9	2.8	1.6
Textile mill products	954,036	558,402	349,177	46,457	1.5	1.2	2.8	1.0
Apparel and other fabricated textile products	1,159,163	860,262	234,825	64,076	1.8	1.8	1.9	1.4
Printing, publishing, and allied products	1,141,192	997,492	130,734	12,966	1.8	2.1	1.0	.3
Chemical and allied products	864,542	670,579	173,274	20,689	1.3	1.4	1.4	.4
Other nondurable goods (including not specified manufacturing)	1,742,987	1,330,158	361,570	51,259	2.7	2.8	2.9	1.1
Railroad and railway express service	941,214	743,236	179,530	18,448	1.5	1.6	1.4	.4
Trucking service and warehousing	911,454	672,595	207,174	31,685	1.4	1.4	1.6	.7
Other transportation	887,245	741,914	115,358	29,973	1.4	1.6	.9	.6
Communications	819,649	691,292	114,519	13,838	1.3	1.5	.9	.3
Utilities and sanitary service	898,585	697,866	180,130	20,589	1.4	1.5	1.4	.4
Wholesale trade	2,212,984	1,833,077	325,213	54,694	3.4	3.9	2.6	1.2
Food and dairy products stores	1,689,688	1,274,056	361,857	53,775	2.6	2.7	2.9	1.2
Eating and drinking places	1,801,667	1,409,954	349,096	42,617	2.8	3.0	2.8	.9
Other retail trade	6,088,296	4,770,486	1,147,614	170,196	9.4	10.1	9.1	3.6
Finance, insurance, and real estate	2,694,630	2,344,174	304,431	46,025	4.2	4.9	2.4	1.0

TABLE 91.—INDUSTRY GROUP OF EMPLOYED PERSONS, BY COLOR, FOR THE UNITED STATES, URBAN AND RURAL: 1960—Continued

[See text for source of data. Percent not shown where less than 0.1]

Industry group and color	United States	Urban	Rural nonfarm	Rural farm	Percent distribution: United States	Percent distribution: Urban	Percent distribution: Rural nonfarm	Percent distribution: Rural farm
ALL CLASSES—Continued								
Business services	761, 430	682, 603	71, 177	7, 650	1.2	1.4	0.6	0.2
Repair services	849, 298	608, 286	214, 784	28, 228	1.3	1.3	1.7	.6
Private households	1, 916, 964	1, 403, 462	418, 195	95, 007	3.0	3.0	3.3	2.0
Other personal services	1, 941, 530	1, 591, 551	312, 859	37, 120	3.0	3.4	2.5	.8
Entertainment and recreation services	502, 879	422, 157	72, 772	7, 950	.8	.9	.6	.2
Educational services:								
Government	2, 537, 388	1, 826, 964	577, 370	133, 054	3.9	3.9	4.6	2.8
Private	856, 545	703, 578	133, 219	19, 748	1.3	1.5	1.1	.4
Welfare, religious, and nonprofit membership organizations	854, 528	685, 370	153, 615	15, 543	1.3	1.4	1.2	.3
Hospitals	1, 683, 892	1, 389, 517	251, 537	42, 883	2.6	2.9	2.0	.9
Other professional and related services	1, 645, 493	1, 394, 650	220, 885	29, 958	2.5	2.9	1.8	.6
Public administration	3, 202, 890	2, 588, 884	524, 767	89, 239	5.0	5.5	4.2	1.9
Industry not reported	2, 608, 085	2, 128, 271	383, 009	96, 805	4.0	4.5	3.0	2.1
Female, employed	21, 172, 301	16, 524, 058	3, 668, 244	979, 999	100.0	100.0	100.0	100.0
Agriculture, forestry, and fisheries	417, 659	64, 545	97, 137	255, 977	2.0	.4	2.6	26.1
Construction and mining	185, 409	151, 266	29, 134	5, 009	.9	.9	.8	.5
Manufacturing	4, 401, 121	3, 385, 795	849, 974	165, 352	20.8	20.5	23.2	16.9
Machinery	722, 874	588, 404	115, 291	19, 179	3.4	3.6	3.1	2.0
Transportation equipment	221, 061	191, 456	25, 722	3, 883	1.0	1.2	.7	.4
Other durable goods	783, 508	633, 415	130, 516	19, 577	3.7	3.8	3.6	2.0
Food and kindred products	429, 729	330, 565	79, 823	19, 341	2.0	2.0	2.2	2.0
Textile mill products	418, 109	248, 314	148, 846	20, 949	2.0	1.5	4.1	2.1
Apparel and other fabricated textile products	856, 204	601, 333	198, 054	56, 817	4.0	3.7	5.4	5.8
Other nondurable goods (including not specified manufacturing)	960, 636	783, 308	151, 722	25, 606	4.5	4.7	4.1	2.6
Transportation, communication, and other public utilities	770, 699	650, 737	101, 053	18, 909	3.6	3.9	2.8	1.9
Wholesale trade	450, 902	386, 591	52, 533	11, 778	2.1	2.3	1.4	1.2
Food and dairy products stores	567, 097	407, 021	136, 548	23, 528	2.7	2.5	3.7	2.4
Eating and drinking places	1, 059, 833	780, 173	244, 679	34, 981	5.0	4.7	6.7	3.6
Other retail trade	2, 316, 733	1, 909, 203	345, 492	62, 038	10.9	11.6	9.4	6.3

Finance, insurance, and real estate	1, 230, 347	1, 070, 181	133, 338	26, 828	5.8	6.5	3.6	2.7
Business and repair services	340, 782	305, 632	30, 613	4, 537	1.6	1.8	.8	.5
Personal services	2, 775, 917	2, 115, 626	546, 048	114, 243	13.1	12.8	14.[illegible]	11.7
Entertainment and recreation services	157, 246	133, 890	20, 935	2, 421	.7	.8	.6	.2
Eudcational services:								
Government	1, 603, 147	1, 145, 719	353, 557	103, 871	7.6	6.9	9.6	10.6
Private	537, 336	443, 011	79, 535	14, 790	2.5	2.7	2.2	1.5
hospitals	1, 258, 088	1, 041, 627	181, 263	35, 198	5.9	6.3	4.9	3.6
Other professional and related services	1, 160, 483	961, 792	169, 636	29, 055	5.5	5.8	4.6	3.0
Public administration	914, 134	724, 004	156, 665	33, 465	4.3	4.4	4.3	3.4
Industry not reported	1, 025, 368	847, 245	140, 104	38, 019	4.8	5.1	3.8	3.9
WHITE								
Total employed	58, 010, 257	42, 202, 773	11, 556, 592	4, 250, 892	100.0	100.0	100.0	100.0
Agriculture	3, 646, 993	400, 992	720, 315	2, 525, 686	6.3	1.0	6.2	59.4
Forestry and fisheries	82, 325	32, 153	43, 434	6, 738	.1	.1	.4	.2
Mining	631, 973	288, 194	312, 438	31, 341	1.1	.7	2.7	.7
Construction	3, 459, 251	2, 332, 287	964, 091	162, 873	6.0	5.5	8.3	3.8
Manufacturing	16, 277, 720	12, 338, 555	3, 408, 359	530, 806	28.1	29.2	29.5	12.5
Furniture, and lumber wood products	890, 103	426, 872	389, 834	73, 397	1.5	1.0	3.4	1.7
Primary metal industries	1, 084, 543	840, 125	221, 569	22, 849	1.9	2.0	1.9	.5
Fabricated metal industries (including not specified metal)	1, 225, 542	1, 001, 187	197, 723	26, 632	2.1	2.4	1.7	.6
Machinery, except electrical	1, 525, 026	1, 195, 816	288, 110	41, 100	2.6	2.8	2.5	1.0
Electrical machinery, equipment, and supplies	1, 432, 994	1, 165, 863	233, 483	33, 648	2.5	2.8	2.0	.8
Motor vehicles and motor vehicle equipment	765, 963	611, 577	131, 392	22, 994	1.3	1.4	1.1	.5
Transportation equipment, except motor vehicle	921, 246	758, 072	144, 902	18, 272	1.6	1.8	1.3	.4
Other durable goods	1, 286, 483	987, 111	267, 054	32, 318	2.2	2.3	2.3	.8
Food and kindred products	1, 640, 847	1, 250, 562	320, 569	69, 716	2.8	3.0	2.8	1.6
Textile mill products	908, 988	526, 315	338, 060	44, 613	1.6	1.2	2.9	1.0
Apparel and other fabricated textile products	1, 062, 012	768, 225	230, 507	63, 280	1.8	1.8	2.0	1.5
Printing, publishing, and allied products	1, 093, 024	951, 030	129, 176	12, 818	1.9	2.3	1.1	.3
Chemical and allied products	809, 100	624, 315	165, 184	19, 601	1.4	1.5	1.4	.5
Other nondurable goods (including not specified manufacturing)	1, 631, 849	1, 231, 485	350, 796	49, 568	2.8	2.9	3.0	1.2
Railroad and railway express service	860, 885	674, 387	168, 995	17, 503	1.5	1.6	1.5	.4
Trucking service and warehousing	841, 418	613, 071	198, 002	30, 345	1.5	1.5	1.7	.7
Other transportation	783, 766	650, 292	106, 553	26, 921	1.4	1.5	.9	.6
Communications	796, 477	669, 457	113, 294	13, 726	1.4	1.6	1.0	.3
Utilities and sanitary service	822, 678	632, 061	171, 069	19, 548	1.4	1.5	1.5	.5
Wholesale trade	2, 071, 049	1, 709, 316	309, 387	52, 346	3.6	4.1	2.7	1.2
Food and dairy products stores	1, 593, 015	1, 190, 127	350, 825	52, 063	2.7	2.8	3.0	1.2
Eating and drinking places	1, 562, 844	1, 197, 368	325, 596	39, 880	2.7	2.8	2.8	.9
Other retail trade	5, 714, 922	4, 444, 070	1, 106, 792	164, 060	9.9	10.5	9.6	3.9

TABLE 103.—INDUSTRY OF EMPLOYED PERSONS BY SIZE OF PLACE: 1970

[Data based on sample, see text. For meaning of symbols, see text]

United States	Total	Urban							Rural		
			Urbanized areas			Other places of—					
		Total	Total	Central cities	Urban fringe	10,000 or more	2,500 to 10,000		Total	Nonfarm	Farm
EMPLOYED PERSONS 16 YEARS OLD AND OVER											
Total	76, 553, 599	57, 873, 851	46, 575, 821	25, 222, 280	21, 353, 541	6, 138, 732	5, 159, 298		18, 679, 748	14, 835, 655	3, 844, 093
Agriculture, forestry, and fisheries	2, 840, 488	591, 863	341, 430	170, 629	170, 801	105, 682	144, 751		2, 248, 625	751, 400	1, 497, 225
Mining	630, 788	324, 425	170, 009	103, 749	66, 260	60, 270	94, 146		306, 363	273, 074	33, 289
Construction	4, 572, 235	3, 107, 516	2, 454, 903	1, 241, 610	1, 213, 293	333, 520	319, 093		1, 464, 719	1, 244, 467	220, 252
Manufacturing	19, 837, 208	14, 624, 756	11, 801, 639	5, 949, 624	5, 852, 015	1, 499, 829	1, 323, 288		5, 212, 452	4, 473, 830	738, 622
Furniture and lumber and wood products	978, 393	477, 675	289, 272	163, 284	125, 988	84, 919	103, 484		500, 718	429, 442	71, 276
Primary metal industries	1, 211, 851	925, 627	765, 940	373, 187	392, 753	84, 353	75, 334		286, 224	252, 070	34, 154
Fabricated metal industries (including not specified metal)	1, 463, 480	1, 146, 624	963, 856	455, 072	508, 784	104, 797	77, 971		316, 856	271, 724	45, 132
Machinery, except electrical	1, 991, 042	1, 524, 930	1, 263, 150	576, 953	686, 197	143, 812	117, 968		466, 112	398, 854	67, 258
Electrical machinery, equipment, and supplies	1, 904, 925	1, 498, 804	1, 272, 895	577, 828	695, 067	127, 887	98, 022		406, 121	349, 753	56, 368
Motor vehicles and other transportation equipment	2, 138, 880	1, 687, 205	1, 484, 542	663, 020	821, 522	103, 289	99, 374		451, 675	388, 312	63, 363
Other durable goods	2, 052, 446	1, 564, 020	1, 286, 363	669, 909	616, 454	152, 576	125, 081		488, 426	422, 443	65, 983
Food and kindred products	1, 390, 339	1, 003, 464	764, 751	451, 524	313, 227	128, 297	110, 416		386, 875	317, 464	69, 411
Textile mill and other fabricated textile products	2, 184, 145	1, 306, 082	879, 122	567, 280	311, 842	208, 006	218, 954		378, 063	752, 715	125, 348
Printing, publishing, and allied industries	1, 191, 624	1, 021, 428	881, 822	475, 257	406, 565	77, 393	62, 213		170, 196	148, 959	21, 237
Chemical and allied products	987, 728	754, 420	613, 614	244, 379	369, 235	82, 869	57, 937		233, 308	205, 824	27, 484
Other nondurable goods (including not specified manufacturing industry)	2, 342, 355	1, 714, 477	1, 336, 312	731, 931	604, 381	201, 631	176, 534		627, 878	536, 270	91, 608

Railroads and railway express service	636, 572	491, 941	379, 203	210, 327	168, 876	62, 207	50, 531	144, 631	127, 206	17, 425
Trucking service and warehousing	1, 082, 530	801, 772	667, 750	350, 486	317, 264	71, 118	62, 904	280, 758	240, 677	40, 081
Other transportation	1, 109, 287	921, 595	831, 209	467, 149	364, 060	50, 760	39, 626	187, 692	152, 802	34, 890
Communications	1, 073, 663	903, 631	753, 114	400, 664	352, 450	87, 337	63, 180	170, 032	150, 634	19, 398
Utilities and sanitary services	1, 284, 049	991, 027	778, 052	440, 625	337, 427	109, 339	103, 636	293, 002	255, 280	37, 742
Wholesale trade	3, 133, 382	2, 595, 560	1, 242, 833	1, 191, 655	1, 051, 178	198, 279	154, 448	537, 822	457, 773	80, 049
Food, bakery, and dairy stores	1, 912, 562	1, 470, 425	1, 159, 707	595, 752	563, 955	160, 910	149, 808	442, 137	381, 757	60, 380
Eating and drinking places	2, 299, 380	1, 826, 878	1, 440, 854	821, 793	619, 061	211, 972	174, 052	472, 502	411, 053	61, 449
General merchandise retailing	2, 086, 639	1, 761, 504	1, 479, 702	775, 519	704, 183	168, 633	113, 169	325, 135	279, 380	45, 755
Motor vehicles retailing and service stations	1, 698, 694	1, 214, 858	879, 782	429, 077	450, 705	169, 074	166, 002	483, 836	424, 694	59, 142
Other retail trade	4, 242, 223	3, 362, 644	2, 628, 740	1, 452, 885	1, 175, 855	395, 052	338, 852	879, 579	746, 277	133, 302
Banking and credit agencies	1, 293, 433	1, 088, 295	920, 925	514, 158	406, 767	91, 973	75, 397	205, 138	174, 699	30, 429
Insurance, real estate, and other finance	2, 544, 954	2, 230, 414	1, 974, 169	1, 124, 887	849, 282	148, 303	107, 942	314, 540	273, 414	41, 126
Business services	1, 294, 899	1, 154, 025	1, 040, 944	566, 039	474, 905	71, 635	41, 446	140, 874	124, 445	16, 429
Repair services	1, 099, 988	836, 662	690, 160	384, 514	305, 646	76, 303	70, 199	263, 326	299, 307	34, 019
Private households	1, 126, 016	816, 701	579, 243	398, 209	181, 034	128, 218	109, 240	309, 315	262, 298	47, 017
Other personal services	2, 410, 560	1, 940, 936	1, 524, 617	967, 811	557, 006	231, 553	184, 766	469, 624	412, 648	56, 976
Entertainment and recreation services	631, 193	532, 736	444, 173	255, 620	188, 553	52, 427	36, 136	98, 457	86, 256	12, 201
Hospitals	2, 689, 722	2, 209, 021	1, 775, 346	1, 105, 153	670, 193	253, 622	180, 053	480, 701	404, 769	75, 932
Health services, except hospitals	1, 556, 465	1, 238, 477	973, 849	518, 252	455, 597	143, 804	120, 824	317, 988	268, 522	49, 466
Elementary and secondary schools and colleges	5, 814, 516	4, 515, 460	3, 395, 988	1, 798, 580	1, 597, 408	644, 690	474, 782	1, 299, 056	1, 096, 409	202, 647
Government	4, 323, 024	3, 299, 649	2, 425, 017	1, 266, 947	1, 158, 070	512, 124	362, 508	1, 023, 375	859, 606	163, 769
Private	1, 491, 492	1, 215, 811	970, 971	531, 633	439, 338	132, 566	112, 274	275, 681	236, 803	38, 878
Other education and kindred services	333, 284	275, 056	221, 741	125, 600	96, 141	31, 213	22, 102	58, 228	49, 341	8, 887
Welfare, religious, and nonprofit membership, organizations	1, 163, 415	956, 004	772, 383	470, 679	301, 704	104, 292	79, 329	207, 411	183, 627	23, 784
Legal, engineering, and miscellaneous professional services	1, 953, 802	1, 669, 190	1, 424, 771	788, 183	636, 588	144, 707	99, 712	284, 612	236, 096	48, 516
Public administration	4, 201, 652	3, 420, 479	2, 828, 585	1, 603, 251	1, 225, 334	332, 010	259, 884	781, 173	663, 520	117, 653
Male	47, 623, 754	35, 167, 324	28, 369, 934	14, 881, 231	13, 488, 703	3, 664, 463	3, 133, 427	12, 455, 930	9, 692, 152	2, 763, 778

TABLE 103.—INDUSTRY OF EMPLOYED PERSONS BY SIZE OF PLACE: 1970—Continued

[Data based on sample, see text. For meaning of symbols, see text]

United States	Total	Urban							Rural		
			Urbanized areas			Other places of—				
		Total	Total	Central cities	Urban fringe	10,000 or more	2,500 to 10,000	Total	Nonfarm	Farm
Agriculture, forestry, and fisheries	2, 521, 048	484, 064	273, 757	137, 310	136, 447	88, 204	122, 103	2, 036, 984	659, 227	1, 377, 757
Mining	580, 459	285, 379	139, 309	81, 473	57, 836	55, 940	90, 130	295, 080	263, 465	31, 615
Construction	4, 304, 999	2, 896, 590	2, 280, 568	1, 151, 916	1, 128, 652	312, 751	303, 271	1, 408, 409	1, 196, 683	211, 726
Manufacturing	14, 173, 549	10, 519, 245	8, 555, 755	4, 170, 836	4, 384, 919	1, 055, 527	907, 963	3, 654, 304	3, 158, 272	496, 032
Furniture and lumber and wood products	812, 376	381, 561	227, 272	127, 663	99, 609	58, 535	85, 754	430, 815	369, 704	61, 111
Primary metal industries	1, 101, 024	838, 261	694. 001	339, 196	354, 805	76, 175	68, 085	262, 763	231, 703	31, 060
Fabricated metal industries (including not specified metal)	1, 173, 297	918, 186	773, 854	363, 929	409, 925	82, 912	61, 420	255, 111	219, 559	35, 552
Machinery, except electrical	1, 660, 850	1, 261, 462	1, 042, 335	472, 709	569, 626	119, 826	99, 301	399, 388	341, 952	57, 436
Electrical machinery, equipment, and supplies	1, 178, 046	935, 042	803, 801	346, 554	457, 247	74, 442	56, 799	243, 004	211, 450	31, 554
Motor vehicles and other transportation equipment	1, 854, 262	1, 456, 915	1, 281, 564	573, 399	708, 165	89, 320	86, 031	397, 347	341, 884	55, 463
Other durable goods	1, 468, 238	1, 108, 585	908, 325	464, 520	443, 805	109, 545	90, 715	359, 653	313, 327	46, 326
Food and kindred products	1, 028, 174	746, 625	570, 588	332, 988	237, 600	95, 142	80, 895	281, 549	231, 007	50, 542
Textile mill and other fabricated textile products	793, 174	480, 576	317, 695	196, 065	121, 630	84, 680	78, 201	312, 598	275, 007	37, 591
Printing, publishing, and allied industries	779, 162	675, 061	587, 000	309, 120	277, 880	50, 308	37, 753	104, 101	92, 881	11, 220
Chemical and allied products	765, 515	573, 730	457, 877	176, 767	281, 110	68, 680	47, 173	191, 785	169, 561	22, 224
Other nondurable goods (including not specified manufacturing industry)	1, 559, 431	1, 143, 241	891, 443	467, 926	423, 517	135, 962	115, 836	416, 190	360, 237	55, 953
Railroads and railway express service	591, 410	451, 734	343, 440	189, 603	153, 837	59, 633	48, 661	139, 676	122, 942	16, 734
Trucking service and warehousing	971, 981	713, 321	593, 010	311, 260	281, 750	63, 283	57, 028	258, 660	222, 217	36, 443
Other transportation	860, 391	719, 349	647, 070	372, 295	274, 775	40, 603	31, 676	141, 042	115, 488	25, 554
Communications	553, 000	450, 770	372, 935	178, 014	194, 921	43, 681	34, 154	102, 230	91, 786	10, 444

Utilities and sanitary services	1,095,174	838,815	654,390	367,713	286,677	94,246	90,179	256,359	224,897	31,462
Wholesale trade	2,397,314	1,970,147	1,688,511	883,340	805,171	159,009	122,627	427,167	365,804	61,363
Food, bakery, and dairy stores	1,176,743	924,268	733,488	384,419	349,069	99,258	91,522	252,475	220,951	31,524
Eating and drinking places	934,186	801,223	670,861	393,357	277,504	78,396	51,966	132,963	119,150	13,813
General merchandise retailing	655,009	557,729	471,808	251,128	220,680	52,420	33,501	97,280	86,436	10,844
Motor vehicles retailing and service stations	1,511,376	1,078,211	780,203	380,786	399,417	150,981	147,027	433,165	380,970	52,195
Other retail trade	2,364,627	1,838,008	1,431,170	791,297	639,873	215,909	190,929	526,619	449,703	76,916
Banking and credit agencies	499,443	430,465	366,095	199,153	166,942	35,845	28,525	68,978	61,027	7,951
Insurance, real estate, and other finance	1,425,527	1,239,161	1,079,830	585,792	494,038	92,617	66,714	186,366	164,807	21,559
Business services	776,005	683,546	611,337	319,170	292,167	45,563	26,646	92,459	82,739	9,720
Repair services	942,546	705,341	576,588	318,232	258,356	66,044	62,709	237,205	206,989	30,216
Private households	106,507	74,572	54,767	33,815	20,952	10,910	8,895	31,935	27,688	4,247
Other peronal services	900,235	743,158	598,395	375,785	222,610	79,883	64,890	157,117	141,022	16,095
Entertainment and recreation services	406,584	342,086	286,377	166,121	120,256	32,903	22,806	64,498	56,828	7,670
Hospitals	616,603	515,451	424,374	269,627	154,747	55,043	36,034	101,152	87,929	13,223
Health services, except hospitals	463,915	392,077	318,616	162,975	155,641	41,576	31,885	71,838	63,603	8,235
Elementary and secondary schools and colleges	2,191,482	1,704,535	1,262,157	662,433	599,724	261,261	181,117	486,947	429,099	57,848
Government	1,628,908	1,247,315	898,281	464,379	433,902	211,911	137,123	381,593	335,176	46,417
Private	562,574	457,220	363,876	198,054	165,822	49,350	43,994	105,354	93,923	11,431
Other education and kindred services	110,817	93,735	79,814	48,015	31,799	9,037	4,884	17,082	15,007	2,075
Welfare, religious, and nonprofit membership organizations	569,715	452,405	355,752	212,421	143,331	53,539	43,114	117,310	107,007	10,303
Legal, engineering, and miscellaneous professional services	1,001,708	874,375	756,084	392,682	363,402	70,867	47,424	127,333	113,283	14,050
Public administration	2,921,351	2,388,054	1,963,473	1,090,263	873,210	239,534	185,047	533,297	457,133	76,164
EMPLOYED PERSONS 14 AND 15 YEARS OLD										
Total	755,193	543,648	409,572	200,268	209,304	69,799	64,277	211,545	154,185	57,350
Agriculture	75,392	18,837	11,077	4,729	6,348	3,310	4,450	56,555	21,868	34,687
Nonagriculture industries	679,801	524,811	398,495	195,539	202,956	66,489	59,827	154,990	132,317	22,673
Male	514,911	370,161	282,311	137,713	144,598	46,733	41,117	144,750	102,933	41,817
Agriculture	65,950	16,148	9,595	4,114	5,481	2,796	3,757	49,802	19,610	30,192
Nonagriculture industries	448,961	354,013	272,716	133,599	139,117	43,937	37,360	94,948	83,323	11,625

U.S. SUMMARY

TABLE 126.—OCCUPATION OF THE EXPERIENCED CIVILIAN LABOR FORCE AND OF EMPLOYED PERSONS, BY SEX, FOR THE UNITED STATES, URBAN AND RURAL; 1950

["N.e.c." means not elsewhere classified]

Occupation and sex	Experienced civilian labor force				Employed				Percent distribution							
									Experienced civilian labor force				Employed			
	United States	Urban	Rural non-farm	Rural farm	United States	Urban	Rural non-farm	Rural farm	United States	Urban	Rural non-farm	Rural farm	United States	Urban	Rural non-farm	Rural farm
Male, 14 years old and over	42,553,838	27,720,867	7,899,566	6,933,405	40,510,176	26,187,404	7,491,164	6,831,608	100.0	65.1	18.6	16.3	100.0	64.6	18.5	16.9
Professional, technical, kindred workers	3,024,430	2,483,456	459,213	81,751	2,970,256	2,435,371	454,182	8,0703	100.0	82.1	15.2	2.7	100.0	82.0	15.3	2.7
Accountants and auditors	327,151	298,819	24,849	3,483	320,799	292,947	24,438	3,414	100.0	91.3	7.6	1.1	100.0	91.3	7.6	1.1
Architects	24,046	21,054	2,601	391	23,823	20,845	2,590	388	100.0	87.6	10.8	1.6	100.0	87.5	10.9	1.6
Artists and art teachers	49,779	44,450	4,706	623	47,907	42,683	4,614	610	100.0	89.3	9.5	1.3	100.0	89.1	9.6	1.3
Authors, editors, and reporters	72,132	63,573	7,600	959	70,322	61,873	7,505	944	100.0	88.1	10.5	1.3	100.0	88.0	10.7	1.3
Chemists	68,118	58,191	8,738	1,189	66,982	57,176	8,632	1,174	100.0	85.4	12.8	1.7	100.0	85.4	12.9	1.6
Clergymen	161,572	107,953	49,167	4,452	160,694	107,286	48,985	4,423	100.0	66.8	30.4	2.3	100.0	66.8	30.5	2.8
College presidents, professors, instructors (n.e.c.)	96,400	80,042	13,850	2,508	95,779	79,535	13,753	2,481	100.0	83.0	14.4	2.6	100.0	83.0	14.4	2.6
Dentists	72,949	62,434	9,396	1,119	72,810	62,304	9,389	1,117	100.0	85.6	12.9	1.5	100.0	85.6	12.9	1.5
Designers and draftsmen	145,504	129,500	14,084	1,920	141,815	126,132	13,801	1,882	100.0	89.0	9.7	1.3	100.0	88.9	9.7	1.3
Engineers, aeronautical	17,589	15,597	1,809	183	17,304	15,341	1,786	177	100.0	88.7	10.3	1.0	100.0	88.7	10.3	1.0
Engineers, civil	123,601	102,848	17,891	2,862	121,386	101,006	17,574	2,806	100.0	83.2	14.5	2.3	100.0	83.2	14.5	2.3
Engineers, electrical	105,867	93,148	12,208	1,511	105,278	91,706	12,089	1,483	100.0	87.2	11.4	1.4	100.0	87.1	11.5	1.4
Engineers, mechanical	112,067	96,917	13,299	1,851	109,588	94,749	13,036	1,803	100.0	86.5	11.9	1.7	100.0	86.5	11.9	1.6
Other technical engineers	167,648	143,609	21,491	2,548	165,225	141,476	21,244	2,505	100.0	85.7	12.8	1.5	100.0	85.6	12.9	1.5
Lawyers and judges	174,893	154,202	17,509	3,182	174,205	153,577	17,454	3,174	100.0	88.1	10.0	1.8	100.0	88.2	10.0	1.8
Musicians and music teachers	81,681	72,066	8,557	1,058	75,612	66,358	8,230	1,024	100.0	88.2	10.5	1.3	100.0	87.8	10.9	1.4
Natural scientists (n.e.c.)	34,738	28,326	5,497	915	34,229	27,893	5,437	899	100.0	81.5	15.8	2.6	100.0	81.5	15.9	2.6
Pharmacists	81,641	68,778	11,968	895	80,855	68,058	11,912	885	100.0	84.2	14.7	1.1	100.0	84.2	14.7	1.1
Physicians and surgeons	180,532	153,138	24,712	2,682	180,233	152,863	24,691	2,679	100.0	84.8	13.7	1.5	100.0	84.8	13.7	1.5
Social scientists	24,256	21,326	2,082	348	23,828	21,453	2,046	329	100.0	90.0	8.6	1.4	100.0	90.0	8.6	1.4
Social, welfare, and recreation workers	33,353	28,605	3,981	767	32,616	27,934	3,924	758	100.0	85.8	11.9	2.3	100.0	85.7	12.0	2.3
Surveyors	25,233	17,335	6,041	1,857	24,375	16,693	5,863	1,819	100.0	68.7	23.9	7.4	100.0	68.5	24.1	7.5
Teachers (n.e.c.)	288,009	178,840	84,605	24,564	285,609	176,909	84,234	24,466	100.0	62.1	29.4	8.5	100.0	61.9	29.5	8.6
Technicians, medical and dental	34,056	30,054	3,545	457	33,052	29,123	3,482	447	100.0	88.2	10.4	1.3	100.0	88.1	10.5	1.4
Other professional technical kindred workers	520,615	412,151	89,027	19,437	505,930	399,451	87,463	19,016	100.0	79.2	17.1	3.7	100.0	79.0	17.3	3.8

Farmers and farm managers	4,203,183	177,238	232,550	3,853,395	4,189,882	112,645	228,339	3,848,898	100.0	2.8	5.5	91.7	100.0	2.7	5.4	91.9
Managers, officers, and proprietors, except farmers	4,391,611	3,449,852	807,316	134,443	4,340,687	3,406,461	800,735	133,471	100.0	78.6	18.4	3.1	100.0	78.5	18.4	3.1
Officers and inspectors, State and local	112,078	79,800	24,873	7,405	110,951	78,902	24,687	7,362	100.0	71.2	22.2	6.6	100.0	71.1	22.3	6.6
Other specified managers and officials	482,845	397,940	69,097	15,808	474,161	390,387	68,163	15,611	100.0	82.4	14.3	3.3	100.0	82.3	14.4	3.3
Managers, officers, and proprietors, (n.e.c.)—salaried	1,593,661	1,309,892	247,356	36,413	1,573,614	1,292,608	244,960	36,046	100.0	82.2	15.5	2.3	100.0	82.1	15.6	2.3
Manufacturing	389,731	328,714	52,591	8,426	386,146	325,584	52,200	8,362	100.0	84.3	13.5	2.2	100.0	84.3	13.5	2.2
Wholesale and retail trade	591,033	482,249	95,491	13,293	583,456	475,678	94,594	13,184	100.0	81.6	16.2	2.2	100.0	81.5	16.2	2.3
Finance, insurance, and real estate	165,608	138,811	23,931	2,866	164,922	138,192	23,870	2,860	100.0	83.8	14.5	1.7	100.0	83.8	14.5	1.7
Other industries (including not reported)	447,189	360,018	75,343	11,828	439,090	353,154	74,296	11,640	100.0	80.5	16.9	2.6	100.0	80.4	16.9	2.7
Managers, officers, and proprietors, (n.e.c.)—self-employed	2,203,027	1,662,220	465,990	74,817	2,191,861	1,644,564	462,945	74,452	100.0	75.5	21.2	3.4	100.0	75.4	21.2	3.4
Construction	200,418	159,290	35,064	6,064	196,837	156,406	34,441	5,990	100.0	79.5	17.5	3.0	100.0	79.5	17.5	3.0
Manufacturing	224,568	175,835	37,099	11,634	222,977	174,570	36,830	11,577	100.0	78.3	16.5	5.2	100.0	78.3	16.5	5.2
Wholesale trade	172,003	145,244	22,666	4,093	170,574	143,980	22,517	4,077	100.0	84.4	13.2	2.4	100.0	84.4	13.2	2.4
Eating and drinking places	216,283	162,278	49,839	4,166	212,771	159,280	49,365	4,126	100.0	75.0	23.0	1.9	100.0	74.9	23.2	1.9
Retail trade, except eating and drinking	967,277	697,583	233,391	36,303	960,114	691,397	232,609	36,108	100.0	72.1	24.1	3.8	100.0	72.0	24.2	3.8
Other industries (including not reported)	422,478	321,990	87,931	12,557	418,688	318,931	87,283	12,474	100.0	76.2	20.8	3.0	100.0	76.2	20.8	3.0
Clerical and kindred workers	2,678,679	2,276,175	329,822	72,682	2,602,610	2,206,717	324,181	71,712	100.0	85.0	12.3	2.7	100.0	84.8	12.5	2.8
Bookkeepers	169,318	134,312	28,663	6,343	164,748	130,383	28,123	6,242	100.0	79.3	16.9	3.7	100.0	79.1	17.1	3.8
Mail carriers	164,268	121,140	32,976	10,152	161,702	118,809	32,774	10,119	100.0	73.7	20.1	6.2	100.0	73.5	20.3	6.3
Other clerical and kindred workers	2,345,093	2,020,723	268,183	56,187	2,276,160	1,957,525	263,284	55,351	100.0	86.2	11.4	2.4	100.0	86.0	11.6	2.4
Sales workers	2,665,824	2,198,594	390,605	76,625	2,596,786	2,137,477	383,723	75,586	100.0	82.5	14.7	2.9	100.0	82.3	14.8	2.9
Insurance agents and brokers	281,160	238,327	36,738	6,095	278,120	235,647	36,421	6,052	100.0	84.8	13.1	2.2	100.0	84.7	13.1	2.2
Real estate agents and brokers	121,974	103,244	15,612	3,118	120,325	101,787	15,443	3,095	100.0	84.6	12.8	2.6	100.0	84.6	12.8	2.6
Other specified sales workers	161,604	136,952	20,893	3,759	156,112	131,963	20,446	3,703	100.0	84.7	12.9	2.3	100.0	84.5	13.1	2.4
Salesmen and sales clerks (n.e.c.)	2,101,086	1,720,071	317,362	63,653	2,042,229	1,668,080	311,413	62,736	100.0	81.9	15.1	3.0	100.0	81.7	15.2	3.1
Manufacturing	303,694	269,800	29,324	4,570	298,271	264,816	28,931	4,524	100.0	88.8	9.7	1.5	100.0	88.8	9.7	1.5
Wholesale trade	399,106	352,678	39,939	6,489	391,647	345,918	39,433	6,406	100.0	88.4	10.0	1.6	100.0	88.3	10.1	1.6
Retail trade	1,294,922	1,013,081	232,248	49,593	1,253,109	976,634	227,604	48,871	100.0	78.2	17.9	3.8	100.0	77.9	18.2	3.9
Other industries (including not reported)	103,364	84,512	15,851	3,001	99,092	80,712	15,445	2,935	100.0	81.8	15.3	2.9	100.0	81.5	15.6	3.0

TABLE 126.—OCCUPATION OF THE EXPERIENCED CIVILIAN LABOR FORCE AND OF EMPLOYED PERSONS, BY SEX, FOR THE UNITED STATES, URBAN, AND RURAL; 1950—Continued

["N.e.c." means not elsewhere classified]

Occupation and sex	Experienced civilian labor force				Employed				Percent distribution							
									Experienced civilian labor force				Employed			
	United States	Urban	Rural non-farm	Rural farm	United States	Urban	Rural non-farm	Rural farm	United States	Urban	Rural non-farm	Rural farm	United States	Urban	Rural non-farm	Rural farm
Craftsmen, foremen, kindred workers	7,907,504	5,833,411	1,687,662	386,431	7,537,016	5,544,071	1,619,303	373,642	100.0	73.8	21.3	4.9	100.0	73.6	21.5	5.0
Bakers	110,206	98,047	10,277	1,882	105,790	94,045	9,935	1,810	100.0	89.0	9.3	1.7	100.0	88.9	9.4	1.7
Blacksmiths, forgemen, hammermen	58,283	32,694	20,131	5,458	56,159	[illegible],285	19,532	5,342	100.0	56.1	34.5	9.4	100.0	55.7	34.8	9.5
Boilermakers	38,535	31,503	5,659	1,373	35,178	28,666	5,221	1,291	100.0	81.8	14.7	3.6	100.0	81.5	14.8	3.7
Cabinetmakers and patternmakers	111,390	86,549	20,103	4,738	106,887	82,773	19,506	4,608	100.0	77.7	18.0	4.3	100.0	77.4	18.2	4.3
Carpenters	980,272	568,207	316,758	95,307	907,728	520,604	295,734	91,390	100.0	58.0	32.3	9.7	100.0	57.4	32.6	10.1
Compositors and typesetters	167,406	146,235	18,546	2,625	164,366	143,430	18,338	2,598	100.0	87.4	11.1	1.6	100.0	87.3	11.2	1.6
Cranemen, hoistermen, construction machinery operators	216,541	127,328	69,599	19,614	207,043	121,305	66,687	19,051	100.0	58.8	32.1	9.1	100.0	58.6	32.2	9.2
Electricians	321,677	237,747	70,422	13,508	307,013	226,199	67,787	13,027	100.0	73.9	21.9	4.2	100.0	73.7	22.1	4.2
Foremen (n.e.c.)	784,083	588,344	164,502	31,237	775,114	581,552	162,658	30,904	100.0	75.0	21.0	4.0	100.0	75.0	21.0	4.0
Manufacturing, durable goods	278,695	222,021	46,867	9,807	276,032	219,896	46,412	9,724	100.0	79.7	16.8	3.5	100.0	79.7	16.8	3.5
Manufacturing, nondurable including not specified	186,489	146,334	33,795	6,360	184,270	144,576	33,403	6,291	100.0	78.5	18.1	3.4	100.0	78.5	18.1	3.4
Nonmanufacturing (including not reported)	318,899	219,989	83,840	15,070	314,812	217,080	82,843	14,889	100.0	69.0	26.3	4.7	100.0	69.0	26.3	4.7
Linemen and servicemen, telegraph, etc	210,944	160,852	41,790	8,302	207,752	158,584	41,055	8,113	100.0	76.3	19.8	3.9	100.0	76.3	19.8	3.9
Locomotive engineers	72,863	60,590	10,232	2,041	72,412	60,236	10,152	2,024	100.0	83.2	14.0	2.8	100.0	83.2	14.0	2.8
Locomotive firemen	55,826	43,697	10,097	2,032	53,944	42,210	9,766	1,968	100.0	78.3	18.1	3.6	100.0	78.2	18.1	3.6
Machinists and job setters	549,858	445,292	85,388	19,178	529,242	427,724	82,853	18,665	100.0	81.0	15.5	3.5	100.0	80.8	15.7	3.5
Masons, tile setters, stone cutters	183,650	131,630	41,795	10,225	172,876	123,607	39,431	9,838	100.0	71.7	22.8	5.6	100.0	71.5	22.8	5.7
Mechanics and repairmen, airplane	72,436	60,115	10,695	1,626	69,567	57,666	10,351	1,550	100.0	83.0	14.8	2.2	100.0	82.9	14.9	2.2
Mechanics and repairmen, auto	673,274	435,888	195,425	41,961	646,525	415,750	189,947	40,828	100.0	64.7	29.0	6.2	100.0	64.3	29.4	6.3
Mechanics and repairmen, radio and television	76,151	62,255	11,989	1,907	72,794	59,292	11,641	1,861	100.0	81.8	15.7	2.5	100.0	81.5	16.0	2.6
Other mechanics and repairmen, and loom fixers	954,483	720,207	191,976	42,300	926,581	697,536	187,532	41,513	100.0	75.5	20.1	4.4	100.0	75.3	20.2	4.5
Millwrights	59,939	42,727	13,886	3,326	57,705	41,089	13,385	3,231	100.0	71.3	23.2	5.5	100.0	71.2	23.2	5.6
Molders, metal	62,855	49,319	10,459	3,077	59,879	46,747	10,124	3,008	100.0	78.5	16.6	4.9	100.0	78.1	16.9	5.0

Painters (construction), paperhangers, glaziers	452, 314	346, 274	88, 707	17, 333	409, 947	310, 927	82, 505	16, 515	100.0	76.6	19.6	3.8	100.0	75.8	20.1	4.0
Plasterers and cement finishers	96, 262	75, 367	16, 910	3, 985	89, 112	69, 535	15, 760	3, 817	100.0	78.3	17.6	4.1	100.0	78.0	17.7	4.3
Plumbers and pipe fitters	293, 875	222, 266	60, 432	11, 177	275, 892	207, 786	57, 459	10, 647	100.0	75.6	20.6	3.8	100.0	75.3	20.8	3.9
Printers, craftsmen excluding compositors and typesetters	87, 418	78, 341	7, 477	1, 600	85, 764	76, 853	7, 336	1, 575	100.0	89.6	8.6	1.8	100.0	89.6	8.6	1.8
Shoemakers and repairers, excluding factory	56, 495	46, 538	8, 874	1, 083	54, 969	45, 184	8, 727	1, 058	100.0	82.4	15.7	1.9	100.0	82.2	15.9	1.9
Stationary engineers	216, 666	152, 046	53, 596	11, 024	212, 504	148, 821	52, 824	10, 859	100.0	70.2	24.7	5.1	100.0	70.0	24.9	5.1
Structural metal workers	54, 815	44, 017	8, 899	1, 899	48, 963	39, 058	8, 160	1, 745	100.0	80.3	16.2	3.5	100.0	79.8	16.7	3.6
Tailors and furriers	80, 464	76, 241	3, 572	651	75, 864	71, 775	3, 465	624	100.0	94.8	4.4	.8	100.0	94.6	4.6	.8
Tinsmiths, coppersmiths, sheetmetal workers	128, 378	105, 855	18, 814	3, 709	121, 660	100, 041	18, 062	3, 557	100.0	82.5	14.7	2.9	100.0	82.2	14.8	2.9
Toolmakers, and diemakers and setters	155, 881	132, 368	19, 192	4, 321	151, 587	128, 547	18, 798	4, 242	100.0	84.9	12.3	2.8	100.0	84.8	12.4	2.8
Other craftsmen and kindred workers	524, 264	424, 872	81, 460	17, 932	476, 199	385, 244	74, 563	16, 392	100.0	81.0	15.5	3.4	100.0	80.9	15.7	3.4
Operatives and kindred workers	8, 536, 065	6, 031, 937	1, 951, 691	552, 437	8, 127, 433	5, 715, 577	1, 874, 517	537, 339	100.0	70.7	22.9	6.5	100.0	70.3	23.1	6.6
Apprentices	116, 489	97, 087	16, 435	2, 967	112, 053	93, 385	15, 808	2, 860	100.0	83.3	14.1	2.5	100.0	83.3	14.1	2.6
Attendants, auto service and parking	240, 626	165, 721	61, 347	13, 558	229, 381	157, 044	59, 071	13, 266	100.0	68.9	25.5	5.6	100.0	68.5	25.8	5.8
Brakemen and switchmen, railroad	141, 862	114, 586	23, 278	3, 998	138, 960	112, 231	22, 807	3, 922	100.0	80.8	16.4	2.8	100.0	80.8	16.4	2.8
Bus drivers	152, 219	107, 176	29, 993	15, 050	150, 058	105, 424	29, 639	14, 995	100.0	70.4	19.7	9.9	100.0	70.3	19.8	10.0
Filers, grinders, and polishers, metal	148, 563	118, 449	23, 585	6, 529	141, 021	111, 881	22, 765	6, 375	100.0	79.7	15.9	4.4	100.0	79.3	16.1	4.5
Furnacemen, smeltermen, and heaters	65, 507	52, 122	10, 477	2, 908	63, 007	50, 027	10, 136	2, 844	100.0	79.6	16.0	4.4	100.0	79.4	16.1	4.5
Laundry and drycleaning operatives	148, 277	127, 353	18, 018	2, 906	140, 802	120, 477	17, 496	2, 829	100.0	85.9	12.2	2.0	100.0	85.6	12.4	2.0
Meat cutters, except slaughter and packers	172, 741	139, 511	28, 248	4, 982	167, 153	134, 711	27, 572	4, 870	100.0	80.8	16.4	2.9	100.0	80.6	16.5	2.9
Mine operatives and laborers (n.e.c.)	599, 621	194, 487	329, 371	75, 763	568, 684	183, 342	312, 567	72, 775	100.0	32.4	54.9	12.6	100.0	32.2	55.0	12.8
Motormen, street, subway, and elevated railway	26, 425	25, 456	824	145	26, 190	25, 234	813	153	100.0	96.3	3.1	.5	100.0	96.3	3.1	.5
Painters, except construction and maintenance	108, 755	85, 968	17, 968	4, 819	103, 325	81, 159	17, 452	4, 714	100.0	79.0	16.5	4.4	100.0	78.5	16.9	4.6
Power station operators	20, 774	13, 696	6, 149	929	20, 642	13, 589	6, 128	925	100.0	65.9	29.6	4.5	100.0	65.8	29.7	4.5
Sailors and deck hands	50, 254	43, 540	5, 555	1, 159	39, 533	33, 594	4, 910	1, 029	100.0	86.6	11.1	2.3	100.0	85.0	12.4	2.6
Sawyers	95, 621	29, 987	43, 808	21, 826	91, 835	28, 294	42, 142	21, 399	100.0	31.4	45.8	22.8	100.0	30.8	45.9	23.3
Spinners and weavers, textile	84, 183	54, 433	23, 819	5, 931	79, 555	51, 004	22, 745	5, 806	100.0	64.7	28.3	7.0	100.0	64.1	28.6	7.3
Stationary firemen	125, 647	87, 508	30, 791	7, 348	120, 742	83, 848	29, 738	7, 156	100.0	69.6	24.5	5.8	100.0	69.4	24.6	5.9
Taxicab drivers and chauffeurs	208, 823	185, 825	19, 659	3, 339	198, 691	176, 561	18, 828	3, 302	100.0	89.0	9.4	1.6	100.0	88.9	9.5	1.6
Truck drivers and deliverymen	1, 630, 985	1, 106, 459	402, 175	122, 351	1, 555, 412	1, 050, 766	385, 651	118, 995	100.0	67.8	24.7	7.5	100.0	67.6	24.8	7.7
Welders and flame-cutters	265, 578	196, 364	55, 787	13, 427	250, 890	184, 519	53, 431	12, 940	100.0	73.9	21.0	5.1	100.0	73.5	21.3	5.2
Other special operations and kindred workers	197, 766	130, 146	55, 489	12, 131	188, 139	123, 099	53, 264	11, 776	100.0	65.8	28.1	6.1	100.0	65.4	28.3	6.3

TABLE 126.—OCCUPATION OF THE EXPERIENCED CIVILIAN LABOR FORCE AND OF EMPLOYED PERSONS, BY SEX, FOR THE UNITED STATES, URBAN, AND RURAL: 1950—Continued

["N.e.c." means not elsewhere classified]

Occupation and sex	Experienced civilian labor force				Employed				Percent distribution							
									Experienced civilian labor force				Employed			
	United States	Urban	Rural non-farm	Rural farm	United States	Urban	Rural non-farm	Rural farm	United States	Urban	Rural non-farm	Rural farm	United States	Urban	Rural non-farm	Rural farm
Operatives and kindred workers (n.e.c.)	3, 935, 349	2, 956, 063	748, 925	230, 361	3, 741, 370	2, 795, 298	721, 488	224, 584	100.0	75.1	19.0	5.9	100.0	74.7	19.3	6.0
Manufacturing	3, 352, 043	2, 522, 613	631, 630	197, 800	3, 190, 517	2, 387, 724	609, 669	193, 124	100.0	75.3	18.8	5.9	100.0	74.8	19.1	6.1
Durable goods	1, 859, 710	1, 410, 335	337, 495	111, 880	1, 773, 109	1, 337, 462	326, 398	109, 249	100.0	75.8	18.1	6.0	100.0	75.4	18.4	6.2
Saw and planing mills, misc. wood products	176, 410	65, 531	76, 704	34, 175	169, 200	62, 017	73, 730	33, 453	100.0	37.1	43.5	19.4	100.0	36.7	43.6	19.8
Furniture and fixtures	101, 662	67, 568	24, 276	9, 818	97, 561	64, 210	23, 695	9, 656	100.0	66.5	23.9	9.7	100.0	65.8	24.3	9.9
Stone, clay, and glass products	139, 936	92, 282	37, 578	10, 076	135, 397	89, 035	36, 507	9, 855	100.0	65.9	26.9	7.2	100.0	65.8	27.0	7.3
Primary metal industries	248, 492	197, 915	39, 659	10, 918	239, 586	190, 442	38, 465	10, 679	100.0	79.6	16.0	4.4	100.0	79.5	16.1	4.5
Fab'd metal (including ing not specified)	201, 289	167, 371	26, 466	7, 452	191, 736	158, 950	25, 561	7, 225	100.0	83.1	13.1	3.7	100.0	82.9	13.3	3.8
Machinery, except electrical	292, 730	230, 156	48, 539	14, 035	282, 084	221, 059	47, 254	13, 771	100.0	78.6	16.6	4.8	100.0	78.4	16.8	4.9
Electrical machinery, equipment, supply	161, 108	136, 834	18, 944	5, 330	154, 615	131, 009	18, 384	5, 222	100.0	84.9	11.8	3.3	100.0	84.7	11.9	3.4
Motor vehicles and motor vehicle equipment	299, 511	248, 909	37, 306	13, 296	280, 218	231, 206	36, 107	12, 905	100.0	83.1	12.5	4.4	100.0	82.5	12.9	4.6
Transp. equip. except motor vehicle	87, 566	74, 536	10, 458	2, 574	81, 029	68, 911	9, 730	2, 388	100.0	85.1	11.9	2.9	100.0	85.0	12.0	2.9
Other durable goods	151, 004	129, 233	17, 565	4, 206	141, 653	120, 593	16, 965	4, 095	100.0	85.6	11.6	2.8	100.0	85.1	12.0	2.9
Nondurable goods	1, 470, 580	1, 096, 947	289, 696	83, 937	1, 397, 664	1, 036, 559	279, 126	81, 979	100.0	74.6	19.7	5.7	100.0	74.2	20.0	5.9
Food and kindred products	322, 794	243, 457	60, 041	19, 296	303, 469	228, 216	56, 680	18, 573	100.0	75.4	18.6	6.0	100.0	75.2	18.7	6.1
Yarn, thread, and fabric mills	232, 330	136, 590	74, 601	21, 139	221, 354	128, 802	71, 834	20, 718	100.0	58.8	32.1	9.1	100.0	58.2	32.5	9.4
Knitting, and other textile mill products	92, 418	65, 176	21, 470	5, 772	88, 941	62, 278	20, 979	5, 684	100.0	70.5	23.2	6.2	100.0	70.0	23.6	6.4
Apparel and other fabricated textile products	170, 527	154, 305	12, 026	4, 196	156, 498	140, 806	11, 594	4, 098	100.0	90.5	7.1	2.5	100.0	90.0	7.4	2.6

Paper and allied products	151,704	105,717	36,551	9,436	147,559	102,472	35,778	9,309	100.0	69.7	24.1	6.2	100.0	69.4	24.2	6.3
Chemicals and allied products	146,264	106,072	31,496	8,696	141,858	102,677	30,654	8,527	100.0	72.5	21.5	5.9	100.0	72.4	21.6	6.0
Leather and leather products	152,663	120,060	24,654	7,949	143,690	112,258	23,666	7,766	100.0	78.6	16.1	5.2	100.0	78.1	16.5	5.4
Other nondurable goods	201,880	165,570	28,857	7,453	194,295	159,050	27,941	7,304	100.0	82.0	14.3	3.7	100.0	81.9	14.4	3.8
Not specified manufacturing industries	21,753	15,331	4,439	1,983	19,744	13,703	4,145	1,896	100.0	70.5	20.4	9.1	100.0	69.4	21.0	9.6
Nonmanufacturing (including not reported)	583,306	433,450	117,295	32,561	550,853	407,574	111,819	31,460	100.0	74.3	20.1	5.6	100.0	74.0	20.3	5.7
Transportation, communication, other public utilities	171,795	128,647	33,910	9,238	165,957	124,277	32,714	8,966	100.0	74.9	19.7	5.4	100.0	74.9	19.7	5.4
Wholesale and retail trade	186,921	149,417	29,578	7,926	176,654	140,700	28,282	7,672	100.0	79.9	15.8	4.2	100.0	79.6	16.0	4.3
Other industries (including not reported)	224,590	155,386	53,807	15,397	208,242	142,597	50,823	14,822	100.0	68.2	24.0	6.9	100.0	68.5	24.4	7.1
Private household workers	77,636	56,592	16,413	4,631	73,156	52,867	15,775	4,514	100.0	72.9	21.1	6.0	100.0	72.3	21.6	6.2
Service workers, except private household	2,503,975	2,116,092	335,113	52,770	2,373,410	1,997,509	324,584	51,317	100.0	84.5	13.4	2.1	100.0	84.2	13.7	2.2
Barbers, beauticians, and manicurists	195,369	155,426	35,216	4,727	192,595	152,971	34,944	4,680	100.0	79.6	[illegible]	2.4	100.0	79.4	18.1	2.4
Charwomen, janitors, and porters	636,830	542,532	80,608	13,690	606,784	514,733	78,628	13,423	100.0	84.9	12.7	2.1	100.0	84.8	13.0	2.2
Cooks, except private household	211,671	184,084	23,969	3,618	192,340	166,520	22,418	3,402	100.0	87.0	11.3	1.7	100.0	86.6	11.7	1.8
Elevator operators	65,758	62,441	2,711	606	62,160	58,949	2,620	591	100.0	95.0	4.1	.9	100.0	94.8	4.2	1.0
Firemen, fire protection	110,319	103,455	5,839	1,025	109,416	102,702	5,717	997	100.0	93.8	5.3	.9	100.0	93.9	5.2	.9
Guards and watchmen	254,874	199,018	45,623	10,233	243,031	188,967	44,077	9,987	100.0	78.1	17.9	4.0	100.0	77.8	18.1	4.1
Policemen, sheriffs, and marshals	215,063	186,250	24,970	3,843	212,685	184,235	24,654	3,796	100.0	86.6	11.6	1.8	100.0	86.6	11.6	1.8
Waiters, bartenders, and counter workers	368,070	314,945	47,880	5,245	341,419	290,454	45,953	5,012	100.0	85.6	13.0	1.4	100.0	85.1	13.5	1.5
Other service workers, except private household	446,021	367,941	68,297	9,783	412,980	337,978	65,573	9,429	100.0	82.5	15.3	2.2	100.0	81.8	15.9	2.3
Farm laborers and foremen	2,047,538	202,974	523,302	1,321,262	1,950,458	166,284	482,183	1,301,991	100.0	9.9	25.6	64.5	100.0	8.5	24.7	66.8
Farm laborers, unpaid family workers	599,244	7,780	36,915	554,549	592,778	6,719	34,886	551,173	100.0	1.3	6.2	92.5	100.0	1.1	5.9	93.0
Farm labor, except unpaid, and foremen	1,448,294	195,194	486,387	76,713	1,357,680	159,565	447,297	750,818	100.0	13.5	33.6	52.9	100.0	11.8	32.9	55.3

TABLE 126.—OCCUPATION OF THE EXPERIENCED CIVILIAN LABOR FORCE AND OF EMPLOYED PERSONS, BY SEX, FOR THE UNITED STATES, URBAN, AND RURAL; 1950—Continued

["N.e.c." means not elsewhere classified]

Occupation and sex	Experienced civilian labor force				Employed				Percent distribution							
									Experienced civilian labor force				Employed			
	United States	Urban	Rural nonfarm	Rural farm	United States	Urban	Rural nonfarm	Rural farm	United States	Urban	Rural nonfarm	Rural farm	United States	Urban	Rural nonfarm	Rural farm
Laborers, except farm and mine	3,611,846	2,373,374	950,015	288,457	3,290,253	2,136,789	878,633	274,831	100.0	64.9	26.7	8.4	100.0	64.9	26.7	8.4
Fishermen and oystermen	71,402	28,444	38,413	4,545	66,572	25,293	36,911	4,368	100.0	39.8	53.8	6.4	100.0	38.0	55.4	6.6
Longshoremen and stevedores	69,074	65,653	2,729	692	62,003	58,838	2,517	648	100.0	95.0	4.0	1.0	100.0	94.9	4.1	1.0
Lumbermen, raftsmen, wood choppers	187,281	27,241	103,501	56,539	170,495	22,608	93,910	53,977	100.0	14.5	55.3	30.2	100.0	13.3	55.1	31.7
Other specified laborers	241,067	169,110	56,850	15,107	225,937	157,168	54,130	14,639	100.0	70.2	23.6	6.3	100.0	69.6	24.0	6.5
Laborers (n.e.c.)	3,043,022	2,082,926	748,522	211,574	2,765,246	1,872,882	691,165	201,199	100.0	68.4	24.6	7.0	100.0	67.7	25.0	7.3
Manufacturing	1,099,094	761,099	257,483	80,512	1,023,986	703,527	242,852	77,607	100.0	69.2	23.4	7.3	100.0	68.7	23.7	7.6
Durable goods	702,726	470,943	174,782	57,001	656,618	436,076	165,441	55,110	100.0	67.0	24.9	8.1	100.0	66.4	25.2	8.4
Furniture, saw and planing mills, wood product	180,782	65,502	82,200	33,080	170,607	60,443	78,032	32,132	100.0	36.2	45.4	18.3	100.0	35.4	45.7	18.8
Stone, clay and glass products	78,846	44,181	27,963	6,702	74,662	41,499	26,697	6,466	100.0	56.0	35.5	8.5	100.0	55.6	35.8	8.7
Primary metal industries	217,994	179,503	31,188	7,303	204,266	168,020	29,249	6,997	100.0	82.3	14.3	3.4	100.0	82.3	14.3	3.4
Fabricated metal (including not specified)	55,126	44,894	7,992	2,240	51,282	41,535	7,584	2,163	100.0	81.4	14.5	4.1	100.0	81.0	14.8	4.2
Machinery, including electrical	80,746	63,008	13,642	4,096	76,056	59,130	12,963	3,963	100.0	78.0	16.9	5.1	100.0	77.7	17.0	5.2
Transportation equipment	71,739	60,282	8,692	2,765	63,481	52,935	7,954	2,592	100.0	84.0	12.1	3.9	100.0	83.4	12.5	4.1
Other durable goods	17,493	13,573	3,105	815	16,264	12,514	2,962	788	100.0	77.6	17.7	4.7	100.0	76.9	18.2	4.8
Nondurable goods	386,882	283,415	80,715	22,752	359,337	261,891	75,647	21,799	100.0	73.3	20.9	5.9	100.0	72.9	21.1	6.1
Food and kindred products	143,472	106,290	28,502	8,680	130,616	96,443	25,992	8,181	100.0	74.1	19.9	6.0	100.0	73.8	19.9	6.3
Textile mill products and apparel	62,330	42,113	15,597	4,620	58,323	38,967	14,865	4,491	100.0	67.6	25.0	7.4	100.0	66.8	25.5	7.7
Chemicals and allied products	64,187	46,664	15,972	3,551	60,526	43,796	13,303	3,427	100.0	72.7	21.8	5.5	100.0	72.4	22.0	5.7
Other nondurable goods	116,893	88,348	22,644	5,901	109,872	82,685	21,487	5,700	100.0	75.6	19.4	5.0	100.0	75.3	19.6	5.2
Not specified manufacturing industries	9,486	6,741	1,986	759	8,031	5,560	1,764	707	100.0	71.1	20.9	8.0	100.0	69.2	22.0	8.8

Nonmanufacturing (including not reported)	1, 943, 928	1, 321, 827	491, 039	131, 062	1, 741, 260	1, 169, 355	448, 313	123, 592	100.0	68.0	25.3	6.7	100.0	67.2	25.7	7.1
Construction	746, 997	488, 863	195, 291	62, 843	649, 341	415, 314	175, 059	58, 968	100.0	65.4	26.1	8.4	100.0	64.0	27.0	9.1
Railroads and railway express service	276, 957	172, 897	86, 780	18, 280	256, 389	157, 981	80, 972	17, 436	100.0	62.4	31.0	6.6	100.0	61.6	31.6	6.8
Transportation, except railroad	112, 134	90, 030	17, 363	4, 741	102, 188	81, 536	16, 130	4, 522	100.0	80.3	15.5	4.2	100.0	79.8	15.8	4.4
Telecommunications, utilities, sanitary services	130, 315	97, 722	25, 447	7, 146	124, 132	93, 307	23, 978	6, 847	100.0	75.0	19.5	5.5	100.0	75.2	19.3	5.5
Wholesale and retail trade	316, 608	238, 318	63, 135	15, 155	295, 363	220, 413	60, 286	14, 664	100.0	75.3	19.9	4.8	100.0	74.6	20.4	5.0
Other industries (including not reported)	360, 917	233, 997	104, 023	22, 897	313, 847	200, 804	91, 888	21, 155	100.0	64.8	28.8	6.3	100.0	64.0	29.3	6.7
Occupations not reported	905, 457	581, 172	215, 864	108, 511	458, 229	275, 636	104, 989	77, 604	100.0	64.2	23.2	12.0	100.0	60.2	22.9	16.9
Female, 14 years old and over	16, 445, 105	12, 798, 635	2, 474, 179	1, 172, 291	15, 715, 164	12, 213, 155	2, 366, 328	1, 135, 681	100.0	77.8	15.0	7.1	100.0	77.7	15.1	7.2
Professional, technical, kindred workers	1, 963, 582	1, 532, 171	316, 333	115, 028	1, 938, 985	1, 510, 977	313, 928	114, 080	100.0	78.0	16.1	5.9	100.0	77.9	16.2	5.9
Accountants and auditors	56, 525	51, 251	4, 187	1, 087	55, 660	50, 450	4, 131	1, 079	100.0	90.7	7.4	1.9	100.0	90.6	7.4	1.9
Actresses, dancers, entertainers (n.e.c.)	23, 363	21, 063	1, 746	554	20, 808	18, 728	1, 667	413	100.0	90.2	7.5	2.4	100.0	90.0	8.0	2.0
Artists and art teachers	30, 756	27, 282	2, 860	614	29, 566	26, 160	2, 800	606	100.0	88.7	9.3	2.0	100.0	88.5	9.5	2.0
Authors, editors, and reporters	35, 524	29, 858	4, 863	803	34, 654	29, 028	4, 828	798	100.0	84.1	13.7	2.3	100.0	83.8	13.9	2.3
Chemists and natural scientists (n.e.c.)	13, 589	12, 052	1, 234	303	13, 290	11, 798	1, 203	289	100.0	88.7	9.1	2.2	100.0	88.8	9.1	2.2
College presidents, professors, instructors (n.e.c.)	29, 183	25, 211	3, 490	482	28, 907	24, 982	3, 459	466	100.0	86.4	12.0	1.7	100.0	86.4	12.0	1.6
Designers and draftsmen	19, 353	17, 893	1, 225	235	18, 573	17, 165	1, 183	225	100.0	92.5	6.2	1.2	100.0	92.4	6.4	1.2
Dietitians and nutritionists	21, 440	18, 425	2, 486	529	21, 059	18, 087	2, 452	520	100.0	85.9	11.6	2.5	100.0	85.9	11.6	2.5
Lawyers and judges	6, 333	5, 736	506	91	6, 256	5, 665	500	91	100.0	90.6	8.0	1.4	100.0	90.6	8.0	1.5
Librarians	49, 356	41, 445	6, 887	1, 024	49, 027	41, 165	6, 845	1, 017	100 0	84.0	14.0	2.1	100.0	84.0	14.0	2.1
Musicians and music teachers	79, 626	63, 568	13, 183	2, 875	77, 844	61, 918	13, 075	2, 851	100.0	79.8	16.6	3.6	100.0	79.5	16.8	3.7
Nurses, professional	393, 930	332, 321	50, 527	11, 082	388, 921	328, 121	49, 876	10, 924	100.0	84.4	12.8	2.8	100.0	84.4	12.8	2.8
Nurses, student professional	75, 064	70, 436	3, 985	643	74, 574	70, 008	3, 944	622	100.0	93.8	5.3	.9	100.0	93.9	5.3	.8
Physicians and surgeons	11, 785	10, 312	1, 284	189	11, 714	10, 248	1, 277	189	100.0	87.5	10.9	1.6	100.0	87.5	10.9	1.6
Social scientists	11, 637	10, 701	789	147	11, 373	10, 474	764	135	100.0	92.0	6.8	1.3	100.0	92.1	6.7	1.2
Social, welfare, and recreation workers	59, 913	52, 330	5, 995	1, 588	58, 917	51, 425	5, 922	1, 570	100.0	87.3	10.0	2.7	100.0	87.3	10.1	2.7
Teachers (n.e.c.)	839, 836	566, 199	185, 847	87, 790	834, 996	562, 569	185, 029	87, 398	100.0	67.4	22.1	10.5	100.0	67.4	22.2	10.5
Technicians, medical and dental	43, 977	39, 501	3, 708	768	43, 271	38, 866	3, 650	755	100.0	89.9	8.4	1.7	100.0	89.8	8.4	1.7
Therapists and healers (n.e.c.)	12, 286	10, 753	1, 384	149	12, 077	10, 564	1, 366	147	100.0	87.5	11.3	1.2	100.0	87.5	11.3	1.2
Other professional, technical, kindred workers	150, 106	125, 834	20, 197	4, 075	147, 498	123, 556	19, 957	3, 985	100.0	83.8	13.5	2.7	100.0	83.8	13.5	2.7

TABLE 126.—OCCUPATION OF THE EXPERIENCED CIVILIAN LABOR FORCE AND OF EMPLOYED PERSONS, BY SEX, FOR THE UNITED STATES, URBAN, AND RURAL; 1950—Continued

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Occupation and sex	Experienced civilian labor force				Employed				Percent distribution							
									Experienced civilian labor force				Employed			
	United States	Urban	Rural nonfarm	Rural farm	United States	Urban	Rural nonfarm	Rural farm	United States	Urban	Rural nonfarm	Rural farm	United States	Urban	Rural nonfarm	Rural farm
Farmers and farm managers	117, 393	9, 705	10, 949	96, 739	116, 371	9, 186	10, 760	96, 425	100.0	8.3	9.3	82.4	100.0	7.9	9.2	82.9
Managers, officers, and proprietors, except farmers	684, 825	524, 908	136, 474	23, 443	676, 778	518, 134	135, 516	23, 128	100.0	76.6	19.9	3.4	100.0	76.6	20.0	3.4
Specified managers and officials	129, 020	100, 319	22, 979	5, 722	126, 594	98, 329	22, 680	5, 585	100.0	77.8	17.8	4.4	100.0	77.7	17.9	4.4
Managers, officers, and proprietors, (n.e.c.)—salaried	217, 787	183, 365	28, 832	5, 590	213, 749	179, 911	28, 401	5, 437	100.0	84.2	13.2	2.6	100.0	84.2	13.3	2.5
Wholesale and retail trade	88, 989	74, 749	11, 982	2, 258	87, 473	73, 380	11, 854	2, 239	100.0	84.0	13.5	2.5	100.0	83.9	13.6	2.6
Other industries (including not reported)	128, 798	108, 616	16, 850	3, 332	126, 276	106, 531	16, 547	3, 198	100.0	84.3	13.1	2.6	100.0	84.4	13.1	2.5
Managers, officers, and proprietors, (n.e.c.)—self-employed	338, 018	241, 224	84, 663	12, 131	336, 435	239, 894	84, 435	12, 106	100.0	71.4	25.0	3.6	100.0	71.3	25.1	3.6
Eating and drinking places	76, 357	49, 323	24, 764	2, 270	75, 831	48, 886	24, 680	2, 265	100.0	64.6	32.4	3.0	100.0	64.5	32.5	3.0
Wholesale and retail trade, except eating and drinking	173, 800	125, 622	40, 411	7, 767	173, 184	125, 096	40, 335	7, 753	100.0	72.3	23.3	4.5	100.0	72.2	23.3	4.5
Other industries (including not reported)	87, 861	66, 279	19, 488	2, 034	87, 420	65, 912	19, 420	2, 088	100.0	75.4	22.2	2.4	100.0	75.4	22.2	2.4
Clerical and kindred workers	4, 391, 344	3, 825, 933	447, 818	117, 593	4, 291, 764	3, 736, 790	439, 715	115, 259	100.0	87.1	10.2	2.7	100.0	87.1	10.2	2.7
Bookkeepers	566, 779	465, 245	78, 335	23, 199	556, 229	456, 016	77, 339	22, 874	100.0	82.1	13.8	4.1	100.0	82.0	13.9	4.1
Cashiers	190, 143	167, 513	18, 940	3, 690	183, 586	161, 519	18, 460	3, 007	100.0	88.1	10.0	1.9	100.0	88.0	10.1	2.0
Stenographers, typists, secretaries	1, 531, 113	1, 370, 561	125, 393	35, 159	1, 501, 090	1, 343, 551	123, 074	34, 465	100.0	89.5	8.2	2.3	100.0	89.5	8.2	2.3
Telephone operators	349, 213	291, 582	49, 134	8, 497	341, 706	285, 060	48, 347	8, 299	100.0	83.5	14.1	2.4	100.0	83.4	14.1	2.4
Other clerical and kindred workers	1, 754, 096	1, 531, 032	176, 016	47, 048	1, 709, 153	1, 490, 644	172, 495	46, 014	100.0	87.3	10.0	2.7	100.0	87.2	10.1	2.7
Sales workers	1, 376, 319	1, 037, 312	227, 871	53, 136	1, 329, 724	1, 055, 428	222, 470	51, 826	100.0	79.6	16.5	3.9	100.0	79.4	16.7	3.9

Insurance and real estate agents and brokers	46,872	40,558	5,297	1,017	46,190	39,948	5,235	1,007	100.0	86.5	11.3	2.2	100.0	86.5	11.3	2.2
Other specified sales workers	25,262	20,645	3,833	784	24,008	19,552	3,701	755	100.0	81.7	15.2	3.1	100.0	81.4	15.4	3.1
Salesmen and sales clerks (n.e.c.), retail	1,235,623	975,389	210,654	49,580	1,192,323	938,242	205,709	48,372	100.0	78.9	17.0	4.0	100.0	78.7	17.3	4.1
Salesmen and sales clerks (n.e.c.) except retail	70,562	60,720	8,087	1,755	67,203	57,686	7,825	1,692	100.0	86.1	11.5	2.5	100.0	85.8	11.6	2.5
Craftsmen, foremen, kindred workers	245,239	206,030	30,949	8,260	235,544	197,686	29,889	7,969	100.0	84.0	12.6	3.4	100.0	83.9	12.7	3.4
Foremen (n.e.c.)	69,365	59,706	7,566	2,093	67,955	58,489	7,417	2,049	100.0	86.1	10.9	3.0	100.0	86.1	10.9	3.0
Other craftsmen and kindred workers	175,874	146,324	23,383	6,167	167,589	139,197	22,472	5,920	100.0	83.2	13.3	3.5	100.0	83.1	13.4	3.5
Operatives and kindred workers	3,179,541	2,517,744	506,818	154,979	3,018,787	2,383,785	485,377	149,625	100.0	79.2	15.9	4.9	100.0	79.0	16.1	5.0
Dressmakers and seamstresses, except factory	138,681	117,294	17,284	4,103	134,310	113,432	16,860	4,018	100.0	84.6	12.5	3.0	100.0	84.5	12.6	3.0
Laundry and drycleaning operatives	300,359	252,292	39,305	8,762	287,533	240,900	38,138	8,495	100.0	84.0	13.0	2.9	100.0	83.8	13.3	3.0
Spinners and weavers, textile	103,387	62,447	32,000	8,940	99,182	59,614	30,859	8,709	100.0	60.4	31.0	8.6	100.0	60.1	31.1	8.8
Other special operatives and kindred workers	128,344	95,355	25,265	7,724	119,550	88,421	23,734	7,395	100.0	74.3	19.7	6.0	100.0	74.0	19.9	6.2
Operatives and kindred workers (n.e.c.)	2,508,770	1,990,356	392,964	125,450	2,378,212	1,881,418	375,786	121,008	100.0	79.3	15.7	5.0	100.0	79.1	15.8	5.1
Manufacturing	2,334,260	1,845,343	369,802	119,115	2,214,989	1,746,000	354,045	114,944	100.0	79.1	15.8	5.1	100.0	78.8	16.0	5.2
Durable goods	666,027	556,554	87,098	22,375	634,360	528,575	84,127	21,658	100.0	83.6	13.1	3.4	100.0	83.3	13.3	3.4
Metal industries	95,961	82,630	10,678	2,653	91,867	78,986	10,312	2,569	100.0	86.1	11.1	2.8	100.0	86.0	11.2	2.8
Machinery, including electrical	25,044	210,294	31,610	8,140	241,273	202,610	30,736	7,927	100.0	84.1	12.6	3.3	100.0	84.0	12.7	3.3
Other durable goods	320,022	263,630	44,810	11,582	301,220	246,979	43,079	11,162	100.0	82.4	14.0	3.6	100.0	82.0	14.3	3.7
Nondurable goods	1,648,518	1,273,523	279,655	95,340	1,562,915	1,203,820	267,141	91,954	100.0	77.3	17.0	5.8	100.0	77.0	17.1	5.9
Food and kindred products	208,089	165,881	32,707	9,501	186,337	149,742	28,205	8,390	100.0	79.7	15.7	4.6	100.0	80.4	15.1	4.5
Knitting mills	108,263	70,839	27,746	9,678	104,926	68,353	27,160	9,413	100.0	65.4	25.6	8.9	100.0	65.1	25.9	9.0
Textile mill products, except knit	261,987	174,530	67,792	19,665	249,860	165,739	65,012	19,109	100.0	66.6	25.9	7.5	100.0	66.3	26.0	7.6
Apparel and other fabricated textile products	684,683	549,616	95,076	39,991	655,351	523,844	92,467	39,040	100.0	80.3	13.9	5.8	100.0	79.9	14.1	6.0
Leather and leather products	146,737	112,243	25,458	9,036	140,199	106,847	24,591	8,761	100.0	76.5	17.3	6.2	100.0	76.2	17.5	6.2
Other nondurable goods	238,759	200,414	30,876	7,469	226,242	189,295	29,706	7,241	100.0	83.9	12.9	3.1	100.0	83.7	13.1	3.2
Not specified manufacturing industries	19,715	15,266	3,049	1,400	17,714	13,605	2,777	1,332	100.0	77.4	15.5	7.1	100.0	76.8	15.7	7.5
Nonmanufacturing (including not reported)	174,510	145,013	23,162	6,335	163,223	135,418	21,741	6,064	100.0	83.1	13.3	3.6	100.0	83.0	13.3	3.7
Private household workers	1,409,938	1,072,327	254,680	82,931	1,334,310	1,011,363	243,233	79,714	100.0	76.1	18.1	5.9	100.0	75.8	18.2	6.0

TABLE 126.—OCCUPATION OF THE EXPERIENCED CIVILIAN LABOR FORCE AND OF EMPLOYED PERSONS, BY SEX, FOR THE UNITED STATES, URBAN, AND RURAL; 1950 —Continued

["N.e.c." means not elsewhere classified]

Occupation and sex	Experienced civilian labor force				Employed				Percent distribution							
									Experienced civilian labor force				Employed			
	United States	Urban	Rural non-farm	Rural farm	United States	Urban	Rural non-farm	Rural farm	United States	Urban	Rural non-farm	Rural farm	United States	Urban	Rural non-farm	Rural farm
Private household workers—living in	203,016	156,635	32,607	13,774	203,016	156,635	32,607	13,774	100.0	77.2	16.1	6.8	100.0	77.2	16.1	6.8
Private household workers—living out	1,206,922	915,692	222,073	69,157	1,131,294	854,728	210,626	65,940	100.0	75.9	18.4	5.7	100.0	75.6	18.6	5.8
Service workers except private household	2,008,021	1,584,963	353,597	69,461	1,914,293	1,506,202	341,136	66,955	100.0	78.9	17.6	3.5	100.0	78.7	17.8	3.5
Attendants, hospital and other institutions	124,733	95,041	25,454	4,238	121,261	92,177	25,008	4,076	100.0	76.2	20.4	3.4	100.0	76.0	20.6	3.4
Barbers, beauticians and manicurists	193,436	158,812	28,468	6,156	189,870	155,699	28,117	6,045	100.0	82.1	14.7	3.2	100.0	82.0	14.8	3.2
Charwoman, janitors, and porters	133,040	115,379	15,209	2,452	128,941	111,641	14,902	2,398	100.0	86.7	11.4	1.8	100.0	86.6	11.6	1.9
Cooks, except private household	251,563	161,133	72,168	18,262	242,422	154,013	70,444	17,965	100.0	64.1	28.7	7.3	100.0	63.5	29.1	7.4
Housekeepers and stewards, except private household	84,802	70,512	12,492	1,798	82,904	68,821	12,317	1,766	100.0	83.1	14.7	2.1	100.0	83.0	14.9	2.1
Practical nurses and midwives	139,793	108,759	24,469	6,565	131,695	102,129	23,281	6,285	100.0	77.8	17.5	4.7	100.0	77.5	17.7	4.8
Waitresses, bartenders, counter workers	645,817	511,599	114,274	19,944	603,419	476,727	107,991	18,701	100.0	79.2	17.7	3.1	100.0	79.0	17.9	3.1
Other service workers except private household	434,837	363,728	61,063	10,046	413,781	344,995	59,076	9,710	100.0	83.6	14.0	2.3	100.0	83.4	14.3	2.3
Farm laborers and foremen	467,242	31,745	66,159	369,338	449,336	25,195	59,291	364,850	100.0	6.8	14.2	79.0	100.0	5.6	13.2	81.2
Farm laborers, unpaid family workers	319,660	3,179	12,535	303,946	317,578	2,939	12,148	302,491	100.0	1.0	3.9	95.1	100.0	0.9	3.8	95.2
Farm labor, except unpaid, and foremen	147,582	28,566	53,624	65,392	131,758	22,256	47,143	62,359	100.0	19.4	36.3	44.3	100.0	16.9	35.8	47.3
Laborers, except farm and mine	139,144	102,382	28,488	8,274	126,979	92,743	26,420	7,816	100.0	73.6	20.5	5.9	100.0	73.0	20.8	6.2
Occupation not reported	460,517	293,415	93,993	73,109	282,293	165,666	58,593	58,034	100.0	63.7	20.4	15.9	100.0	58.7	20.8	20.6

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TABLE 222.—DETAILED OCCUPATION OF EMPLOYED PERSONS BY RESIDENCE AND SEX: 1970

[Data based on sample, see text. For minimum base for derived figures (percent, median, etc.) and meaning of symbols, see text]

United States	Number							
	Total		Urban		Rural nonfarm		Rural farm	
	Male	Female	Male	Female	Male	Female	Male	Female
Total employed, 16 years old and over	47, 623, 754	28, 929, 845	35, 167, 824	22, 706, 027	10, 235, 759	5, 421, 258	2, 220, 171	802, 560
Professional, technical, and kindred workers	6, 800, 554	4, 550, 584	5, 679, 652	3, 693, 998	1, 048, 870	737, 310	72, 032	121, 276
Accountants	520, 601	182, 945	463, 778	156, 086	53, 325	23, 598	3, 498	3, 261
Architects	54, 233	1, 981	48, 119	1, 724	5, 708	242	406	15
Computer specialists	204, 614	49, 923	180, 907	45, 356	22, 920	4, 262	787	305
Computer programers	124, 956	36, 381	110, 447	32, 851	13, 976	3, 304	533	226
Computer systems analysts	68, 213	11, 736	60, 454	10, 881	7, 577	781	182	74
Computer specialists, n.e.c	11, 445	1, 806	10, 006	1, 624	1, 367	177	72	5
Engineers	1, 187, 932	19 577	1, 010, 549	16 683	169, 023	2, 675	8, 360	219
Aeronautical and astronautical	64, 508	1, 075	57, 684	938	6, 496	131	328	6
Chemical	51, 404	668	44, 006	576	7, 162	87	236	5
Civil	170, 684	2, 293	141, 669	1, 907	27, 081	355	1, 934	31
Electrical and electronic	276, 556	4, 684	237, 623	4, 165	37, 415	475	1, 518	44
Industrial	178, 716	5, 509	149, 694	4, 586	27, 728	870	1, 294	53
Mechanical	175, 586	1, 626	149, 141	1, 276	25, 223	340	1, 222	10
Metallurgical and materials	15, 115	199	12, 518	185	2, 483	9	114	5
Mining	4, 464	51	3, 147	19	1, 282	29	35	3
Petroleum	10, 876	153	9, 670	132	1, 110	15	96	6
Sales	53, 872	398	47, 909	367	5, 751	31	212	-
Engineers, n.e.c	186, 151	2, 921	157, 488	2, 532	27, 292	333	1, 371	56
Farm management advisors	6, 345	1, 247	3, 200	697	2, 672	424	473	126
Foresters and conservationists	38, 217	1, 591	14, 312	551	20, 928	871	2, 977	169
Home management advisors	216	5, 177	140	3, 826	71	1, 127	5	224
Lawyers and judges	259, 221	13, 180	233, 622	11, 622	23, 601	1, 339	1, 998	219
Judges	11, 380	869	8, 773	517	2, 233	292	374	60
Lawyers	247, 841	12, 311	224, 849	11, 105	21, 368	1, 047	1, 624	159
Librarians, archivists, and curators	26, 818	101, 916	23, 485	80, 900	3, 165	18, 382	168	2, 634
Librarians	22, 001	99, 851	19, 285	79, 162	2, 573	18, 100	143	2, 589
Archivists and curators	4, 817	2, 065	4, 200	1, 738	592	282	25	45
Mathematical specialists	23, 041	12, 048	20, 704	11, 061	2, 256	941	81	46
Actuaries	3, 810	1, 150	3, 527	1, 060	283	86	-	4
Mathematicians	5, 927	1, 716	5, 135	1, 534	764	182	28	-
Statisticians	13, 304	9, 182	12, 042	8, 467	1, 209	673	53	42

TABLE 222.—DETAILED OCCUPATION OF EMPLOYED PERSONS BY RESIDENCE AND SEX: 1970—CONTINUED

[Data based on sample, see text. For minimum base for derived figures (percent, median, etc.) and meaning of symbols, see text]

United States	Number							
	Total		Urban		Rural nonfarm		Rural farm	
	Male	Female	Male	Female	Male	Female	Male	Female
Life and physical scientists	175, 892	26, 597	147, 145	23, 359	26, 828	2, 836	1, 919	402
Agricultural	11, 694	1, 011	7, 802	554	3, 180	285	712	172
Atmospheric and space	5, 255	520	4, 527	371	714	132	14	17
Biological	19, 126	10, 254	15, 360	9, 196	3, 504	986	262	72
Chemists	95, 599	12, 887	80, 987	11, 510	13, 901	1, 251	711	126
Geologists	19, 085	715	16, 902	676	2, 098	37	85	2
Marine	2, 992	161	2, 578	132	397	29	17	-
Physicists and astronomers	21, 075	866	18, 059	754	2, 906	99	110	13
Life and physical, n.e.c	1, 066	183	930	166	128	17	8	-
Operations and systems researchers and analysts	71, 841	7, 637	62, 879	6, 876	8, 631	709	331	52
Personnel and labor relations workers	201, 446	89, 310	173, 698	80, 058	26, 317	8, 514	1, 431	738
Physicians, dentists, and related practioners	493, 081	45, 665	426, 128	40, 185	62, 653	4, 888	4, 300	592
Chiropractors	12, 602	1, 127	10, 153	931	2, 330	175	119	21
Dentists	87, 691	3, 110	75, 665	2, 720	11, 354	324	672	66
Optometrists	16, 527	692	14, 409	603	2, 032	79	86	10
Pharmacists	96, 610	13, 032	81, 582	10, 939	14, 458	1, 905	570	188
Physicians, medical and osteopathic	255, 105	25, 824	226, 888	23, 487	26, 393	2, 074	1, 824	263
Podiatrists	5, 566	460	5, 103	412	443	48	20	-
Veterinarians	18, 450	985	11, 848	676	5, 608	270	994	39
Health practitioners, n.e.c	530	435	480	417	35	13	15	5
Registered nurses, dietitians, and therapists	53, 152	891, 831	44, 131	724, 051	8, 224	146, 913	797	20, 867
Dietitians	3, 222	36, 909	2, 652	30, 182	480	5, 745	90	982
Registered nurses	22, 332	807, 359	18, 169	653, 210	3, 754	134, 875	409	19, 274
Therapists	27, 598	47, 563	23, 310	40, 659	3, 990	6, 293	298	611
Health technologists and technicians	78, 946	180, 893	67, 582	155, 593	10, 536	22, 851	828	2, 449
Clinical laboratory technologists and technicians	32, 965	84, 641	28, 259	73, 132	4, 366	10, 361	340	1, 148
Dental hygienists	942	14, 863	817	12, 735	114	1, 990	11	138
Health record technologists and technicians	881	10, 283	742	8, 651	128	1, 479	11	153
Radiologic technologists and technicians	16, 767	35, 463	14, 276	30, 128	2, 350	4, 824	141	511
Therapy assistants	1, 093	2, 118	907	1, 847	156	233	30	38
Health technologists and technicians, n.e.c	26, 298	33, 525	22, 581	29, 100	3, 422	3, 964	295	416
Religious workers	227, 614	26, 062	161, 357	21, 738	64, 699	4, 040	1, 558	284
Clergymen	211, 830	6, 237	148, 116	4, 698	62, 297	1, 481	1, 427	58
Religious workers, n.c.e	15, 784	19, 825	13, 241	17, 040	2, 412	2, 559	131	226
Social scientists	87, 712	20, 801	78, 913	19, 342	8, 460	1, 358	339	101

Economists	58, 558	7, 390	53, 085	[illegible], 928	5, 254	414	219	48
Political scientists	689	215	618	197	71	18	-	-
Psychologists	17, 200	10, 630	15, 082	9, [illegible]0	2, 043	8[illegible]0	75	40
Sociologists	851	467	754	43[illegible]	93	29	4	-
Urban and regional planners	7, 954	1, 099	7, 305	1, 056	617	39	32	4
Social scientists, n.e.c.	2, 460	1, 000	2, 069	933	382	58	9	9
Social and recreation workers	109, 901	156, 053	94, 196	135, 287	14, 395	19, 225	1, 310	2, 541
Social	80, 810	135, 813	68, 858	117, 213	10, 895	16, 254	1, 057	2, 346
Recreation	29, 091	20, 240	25, 338	18, 074	3, 500	1, 971	253	195
Teachers, college and university	348, 158	138, 063	300, 061	120, 096	45, 930	16, 388	2, 167	1, 579
Biology	16, 332	4, 260	13, 861	3, 781	2, 338	455	133	24
Chemistry	13, 875	1, 839	12, 248	1, 605	1, 565	223	62	11
Engineering	15, 592	931	13, 324	788	2, 129	124	139	19
Physics	13, 297	664	11, 479	597	1, 752	62	66	5
Other life and physical sciences	8, 341	526	6, 835	426	1, 360	95	146	5
Mathematics	21, 014	4, 935	18, 223	4, 292	2, 671	607	120	36
Economics	9, 123	731	8, 172	661	912	59	39	11
English	22, 402	16, 067	19, 370	14, 069	2, 927	1, 841	105	157
History	13, 457	2, 823	11, 819	2, 495	1, 573	322	65	6
Miscellaneous social sciences	23, 809	7, 731	20, 873	7, 009	2, 842	689	94	33
Other specified teachers	94, 741	55, 979	82, 280	48, 188	12, 014	7, 000	447	791
Not specified teachers	96, 175	41, 577	81, 577	36, 185	13, 847	4, 911	751	481
Teachers, except college and university	815, 783	1, 926, 165	613, 808	1, 491, 423	185, 464	365, 156	16, 511	69, 586
Adult education	27, 129	23, 037	21, 281	18, 790	5, 479	3, 781	369	466
Elementary school	231, 028	1, 182, 887	168, 693	897, 560	56, 512	235, 544	5, 823	49, 783
Prekindergarten and kindergarten	2, 637	122, 359	2, 119	101, 103	471	18, 796	47	2, 460
Secondary school	510, 020	491, 489	383, 381	387, 555	116, 766	89, 918	9, 873	14, 016
Teachers, except college and university, n.e.c.	44, 969	106, 393	38, 334	86, 415	6, 236	17, 117	399	2, 861
Engineering and science technicians	715, 316	87, 837	573, 473	70, 804	131, 542	15, 354	10, 301	1, 679
Agriculture and biological, except health	21, 655	10, 060	13, 443	7, 297	6, 553	2, 339	1, 659	424
Chemical	51, 333	9, 034	40, 250	7, 183	10, 416	1, 697	667	154
Draftsmen	262, 858	22, 257	222, 641	19, 206	38, 019	2, 812	2, 198	239
Electrical and electronic engineering	145, 565	8, 612	121, 853	7, 167	22, 736	1, 354	976	91
Industrial engineering	17, 934	2, 400	14, 246	1, 877	3, 450	454	238	69
Mechanical engineering	12, 746	503	10, 509	387	2, 080	116	157	-
Mathematical	678	92	552	70	116	10	10	12
Surveyors	57, 678	1, 690	37, 641	1, 236	17, 903	377	2, 134	77
Engineering and science, n.e.c.	144, 869	33, 189	112, 338	26, 381	30, 269	6, 195	2, 262	613
Technicians, except health, and engineering and science	137, 856	17, 636	109, 592	14, 132	26, 264	3, 262	2, 000	242
Airplane pilots	49, 694	710	38, 808	534	10, 029	170	857	6
Air traffic controllers	23, 923	1, 370	19, 723	1, 155	4, 002	200	198	15
Embalmers	4, 528	221	3, 776	191	695	30	57	-
Flight engineers	6, 181	164	5, 246	141	885	23	49	-
Radio operators	21, 069	7, 307	16, 500	5, 632	4, 238	1, 599	331	76
Tool programers, numerical control	2, 585	498	2, 202	466	342	32	41	-
Technicians, n.e.c	29, 875	7, 366	23, 337	6, 013	6, 072	1, 208	467	145

TABLE 222.—DETAILED OCCUPATION OF EMPLOYED PERSONS BY RESIDENCE AND SEX: 1970—Continued

[Data based on sample, see text. For minimum base for derived figures (percent, median, etc.) and meaning of symbols, see text]

United States	Number							
	Total		Urban		Rural nonfarm		Rural farm	
	Male	Female	Male	Female	Male	Female	Male	Female
Professional, technical, and kindred workers—Continued								
Vocational and educational counselors	60, 123	46, 556	48, 174	40, 098	11, 219	5, 851	730	607
Writers, artists, and entertainers	526, 718	227, 239	459, 672	197 491	62, 963	26, 395	4, 083	3, 353
Actors	5, 846	3, 882	5, 581	3, 657	250	204	15	21
Athletes and kindred workers	34, 971	12, 522	26, 654	10, 584	7, 250	2, 336	1, 067	602
Authors	17, 933	7, 443	15, 665	6, 619	2, 156	755	112	69
Dancers	1, 072	4, 878	1, 007	4, 614	65	260		4
Designers	83, 117	25, 671	72, 394	23, 374	10, 309	2, 119	414	178
Editors and reporters	87, 565	59, 360	77, 734	50, 594	9, 404	7, 720	427	1, 046
Musicians and composers	56, 341	31, 493	51, 247	26, 904	4, 829	4, 108	265	481
Painters and sculptors	64, 614	36, 279	57, 438	31, 581	6, 929	4, 259	247	439
Photographers	55, 785	8, 906	48, 749	7, 442	6, 737	1, 305	299	159
Public relations men and publicity writers	54, 368	19, 376	48, 405	17, 975	5, 574	1, 288	389	113
Radio and television announcers	19, 766	1, 460	16, 480	1, 201	3, 064	227	222	32
Writers, artists, and entertainers, n.e.c	45, 340	14, 969	38, 318	12, 946	6, 396	1, 814	626	209
Research workers, not specified	86, 045	29, 912	74, 842	27, 474	10, 581	2, 271	622	167
Professional, technical, and kindred workers—allocated	289, 732	242, 742	245, 185	197, 485	40 495	36, 438	4, 052	8, 819
Managers and administrators, except farm	5, 315, 768	1, 055, 381	4, 207, 338	827, 264	1, 020, 137	204, 819	88, 293	23, 298
Assessors, controllers, and treasurers; local public administration	17, 338	10, 664	11, 725	5, 964	4, 318	3, 972	1, 295	728
Bank officers and financial managers	254, 969	54, 469	212, 123	44, 026	39, 724	8, 997	3, 122	1, 446
Buyers and shippers, farm products	19, 346	490	9, 454	268	7, 093	148	2, 799	74
Buyers, wholesale and retail trade	123, 171	51, 570	106, 797	45, 047	15, 080	6, 012	1, 294	511
Credit men	42, 393	16, 569	37, 901	14, 331	4, 283	2, 002	209	236
Funeral directors	33, 298	2, 502	26, 487	1, 928	6, 598	550	213	24
Health administrators	46, 604	37, 535	37, 972	29, 596	8, 040	7, 133	592	806
Construction inspectors; public administration	18, 185	289	15, 426	205	2 561	79	198	5
Inspectors, except construction; public administration	74, 692	5, 513	57, 555	4, 340	14, 584	999	2, 553	174
Federal public administration and postal service	46, 623	3, 747	37, 150	2, 924	8, 415	696	1, 058	127
State public administration	18, 840	1, 068	12, 336	793	5, 223	239	1, 281	36
Local public administration	9, 229	698	8, 069	623	946	64	214	11
Managers and superintendents, building	49, 813	33, 306	45, 570	32, 075	3, 910	1, 131	333	100
Officers, pilots, and pursers; ship	24, 166	452	16, 244	346	7, 553	100	369	6
Officials and administrators; public administration, n.e.c	198, 949	46, 829	156, 932	36, 343	36, 386	9, 188	5, 631	1, 298
Federal public administration and postal service	99, 104	20, 078	85, 232	17, 619	12, 657	2, 219	1, 215	241
State public administration	42, 147	6, 435	29, 214	5, 148	11, 492	1, 139	1, 441	148
Local public administration	57, 698	20, 316	42, 486	13, 576	12 237	5, 831	2, 975	909
Officials of lodges, societies and unions	42, 083	8, 002	36, 527	7, 116	4, 976	806	580	80

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Postmasters and mail superintendents	24,119	11,195	9,976	911	12,460	8,932	1,683	1,352
Purchasing agents and buyers, n.e.c	139,412	22,026	116,691	19,052	21,076	2,739	1,645	235
Railroad conductors	39,026	419	30,416	353	8,030	66	580	
Restaurant, cafeteria, and bar managers	211,528	109,681	171,877	76,037	37,642	30,569	2,009	3,075
Sales managers and department heads, retail trade	157,220	49,173	133,140	41,903	22,857	6,701	1,223	569
Sales managers, except retail trade	237,617	8,671	208,503	7,709	27,737	904	1,377	58
School administrators, college	29,797	9,131	24,754	7,876	4,760	1,134	283	121
School administrators, elementary and secondary	124,074	46,189	86,308	38,429	34,931	6,826	2,835	934
Managers and administrators, n.e.c., salaried	2,455,452	345,074	1,990,173	288,859	433,530	51,127	31,749	5,088
Construction	243,787	7,815	181,181	6,322	57,645	1,374	4,961	119
Manufacturing	641,737	42,617	525,811	35,335	108,978	6,633	6,948	649
Transportation	124,030	17,211	105,005	15,354	17,777	1,707	1,248	150
Communications, and utilities and sanitary services	100,561	13,214	80,188	11,417	19,330	1,644	1,043	153
Wholesale trade	235,169	18,613	198,271	16,258	33,680	2,097	3,218	258
Retail trade	582,760	98,354	452,952	77,938	120,797	18,465	9,011	1,951
Hardware, farm equipment, and building material retailing	49,763	2,684	33,258	2,043	14,998	561	1,507	80
General merchandise stores	77,225	24,761	64,769	19,675	11,845	4,551	611	535
Food stores	121,587	16,737	95,750	11,919	24,409	4,333	1,428	485
Motor vehicles and accessories retailing	98,200	5,597	73,890	4,338	23,064	1,152	1,246	107
Gasoline service stations	63,995	1,959	44,108	1,270	18,554	665	1,333	24
Apparel and accessories stores	37,862	19,290	34,227	16,508	3,490	2,576	145	206
Furniture, home furnishings, and equipment stores	37,787	5,128	31,888	4,423	5,627	632	272	73
Other retail trade	96,341	22,198	75,062	17,762	18,810	3,995	2,469	441
Finance, insurance, and real estate	155,005	32,563	136,816	29,268	17,143	2,965	1,046	330
Business and repair services	121,440	19,332	106,819	17,550	13,966	1,656	655	126
Personal services	97,320	34,793	74,474	27,377	21,242	6,977	1,604	439
All other industries	153,643	60,562	128,656	52,040	22,972	7,609	2,015	913
Managers and administrators, n.e.c., self-employed	758,537	143,126	509,329	91,724	227,109	46,454	22,099	4,948
Construction	135,230	2,693	87,911	1,925	42,836	680	4,483	88
Manufacturing	59,999	6,107	41,174	4,584	16,726	1,396	2,099	127
Transportation	18,952	2,078	12,209	1,599	6,019	437	724	42
Communications, and utilities and sanitary services	2,428	166	1,666	104	679	62	83	
Wholesale trade	50,595	4,398	38,335	3,467	10,845	826	1,415	105
Retail trade	343,806	84,335	218,656	49,631	115,025	31,076	10,125	3,628
Hardware, farm equipment, and building material retailing	25,917	2,353	14,965	1,360	9,960	944	992	49
General merchandise stores	16,536	7,893	9,198	3,738	6,732	3,682	606	473
Food stores	84,439	29,770	49,432	14,742	31,716	13,491	3,291	1,537
Motor vehicles and accessories retailing	23,283	1,210	15,086	794	7,595	374	602	42
Gasoline service stations	97,562	3,454	58,776	1,340	36,361	2,013	2,425	101
Apparel and accessories stores	13,823	9,918	11,487	7,605	2,248	2,030	88	283
Furniture, home furnishings, and equipment stores	23,623	3,696	17,940	2,739	5,356	844	327	113
Other retail trade	58,623	26,041	41,772	17,313	15,057	7,698	1,794	1,030
Finance, insurance and real estate	20,992	3,094	17,863	2,601	2,846	464	283	29
Business and repair services	46,034	6,201	35,741	5,174	9,609	901	684	126
Personal services	61,017	27,513	41,115	17,671	18,080	9,222	1,822	620
All other industries	19,484	6,541	14,659	4,968	4,444	1,390	381	183
Managers and administrators, except farm—allocated	193,979	42,506	155,458	32,826	34,899	8,250	3,622	1,430

TABLE 222.—DETAILED OCCUPATION OF EMPLOYED PERSONS BY RESIDENCE AND SEX: 1970—Continued

[Data based on sample, see text. For minimum base for derived figures (percent, median, etc.) and meaning of symbols, see text]

United States	Number							
	Total		Urban		Rural nonfarm		Rural farm	
	Male	Female	Male	Female	Male	Female	Male	Female
Sales workers	3,303,774	2,141,600	2,758,798	1,753,659	499,624	343,621	45,352	44,320
Advertising agents and salesmen	50,499	12,177	44,765	10,853	5,459	1,201	275	123
Auctioneers	4,493	287	2,146	184	1,705	93	642	10
Demonstrators	3,392	34,462	2,604	25,123	708	8,031	80	1,308
Hucksters and peddlers	24,498	93,064	19,530	64,779	4,512	23,573	456	4,712
Insurance agents, brokers, and underwriters	399,155	56,469	330,951	47,850	62,630	7,734	5,574	885
Newsboys	51,529	10,093	43,822	6,212	7,209	3,602	498	279
Real estate agents and brokers	178,608	83,553	149,828	71,493	26,066	11,195	2,714	865
Stock and bond salesmen	88,399	8,880	80,865	8,257	7,019	580	515	43
Salesmen and sales clerks, n.e.c.	2,336,030	1,683,501	1,945,084	1,387,941	358,825	262,421	32,121	33,139
Sales representatives, manufacturing industries	377,112	34,645	326,523	29,345	47,542	4,734	3,047	566
Sales representatives, wholesale trade	600,553	40,889	516,550	34,281	77,640	5,697	6,363	911
Sales clerks, retail trade	801,312	1,470,707	654,461	1,209,433	131,653	231,538	15,198	29,736
Sales, retail trade	400,719	59,228	313,065	47,306	81,467	10,834	6,187	1,088
Salesmen of services and construction	156,334	78,032	134,485	67,576	20,523	9,618	1,326	838
Sales workers—allocated	167,171	159,114	139,203	130,967	25,491	25,191	2,477	2,956
Clerical and kindred workers	3,642,442	10,105,818	3,067,334	8,464,251	520,864	1,456,272	54,244	185,295
Bank tellers	34,364	214,879	28,671	168,056	5,135	40,935	558	5,888
Billing clerks	18,799	87,202	16,071	74,507	2,537	11,652	191	1,043
Bookkeepers	276,657	1,258,111	227,974	993,409	43,827	229,064	4,856	35,638
Cashiers	134,051	689,461	115,359	563,859	17,186	114,176	1,506	11,426
Clerical assistants, social welfare	261	937	179	767	70	130	12	40
Clerical supervisors, n.e.c.	64,360	48,362	55,040	42,964	8,478	4,847	842	551
Collectors, bill and account	32,839	18,486	28,074	15,926	4,391	2,426	374	134
Counter clerks, except food	75,925	151,605	66,140	130,178	9,100	19,851	685	1,576
Dispatchers and starters, vehicle	49,891	9,958	41,874	8,480	7,451	1,367	566	111

Enumerators and interviewers	14,477	50,091	11,380	33,595	2,474	12,836	623	3,670
Estimators and investigators, n.e.c	162,901	102,280	141,288	91,683	19,955	9,646	1,658	941
Expediters and production controllers	158,176	45,895	131,253	39,025	25,298	6,231	1,625	639
File clerks	64,408	292,252	58,367	262,019	5,566	27,029	475	3,204
Insurance adjusters, examiners, and investigators	70,398	25,570	61,633	23,790	8,333	1,604	432	176
Library attendants and assistants	26,034	97,293	23,885	80,719	2,004	14,767	145	1,807
Mail Carriers, post office	232,958	19,566	185,228	12,481	40,556	6,039	7,174	1,046
Mail handlers, except post office	71,675	53,433	64,863	46,484	6,236	6,329	576	620
Messengers, including telegraph, and office boys	44,450	10,963	41,405	9,645	2,775	1,203	270	115
Meter readers, utilities	32,184	831	23,508	611	8,006	195	670	25
Office machine operators	145,178	407,402	127,754	355,642	16,132	47,042	1,292	4,718
Bookkeeping and billing machine	6,703	56,565	5,960	49,107	669	6,681	74	777
Calculating machine	3,053	31,843	2,777	29,248	244	2,312	32	283
Computer and peripheral equipment	83,023	34,199	73,446	29,379	9,000	4,317	577	503
Duplicating machine	8,739	11,526	7,887	10,275	794	1,179	58	72
Keypunch	27,896	244,674	23,788	212,737	3,694	29,194	414	2,743
Tabulating machine	4,118	4,042	3,593	3,459	497	549	28	34
Office machine, n.e.c	11,646	24,553	10,303	21,437	1,234	2,810	109	306
Payroll and timekeeping clerks	48,543	107,264	39,796	88,054	8,191	17,315	556	1,895
Postal clerks	210,259	91,668	184,164	62,322	23,459	25,968	2,636	3,378
Proofreaders	7,069	21,030	6,496	18,006	536	2,749	37	275
Real estate appraisers	20,539	842	17,274	682	2,751	142	514	18
Receptionists	15,859	287,053	14,172	246,427	1,540	36,407	147	4,219
Secretaries	64,066	2,638,033	54,758	2,220,994	8,317	371,056	991	45,983
Shipping and receiving clerks	350,809	59,652	286,239	47,766	58,562	10,717	6,008	1,169
Statistical clerks	89,053	160,269	75,229	139,813	12,738	18,439	1,086	2,017
Stenographers	8,082	119,875	7,254	103,540	773	14,589	55	1,746
Stock clerks and storekeepers	348,006	102,800	282,893	86,372	59,115	14,987	5,998	1,441
Teacher aides, except school monitors	12,646	117,359	10,873	85,236	1,572	27,418	201	4,705
Telegraph operators	8,704	3,553	5,978	3,086	2,470	425	256	42
Telephone operators	22,458	384,543	18,515	335,976	3,694	44,190	249	4,377
Ticket, station, and express agents	62,422	35,615	53,835	33,082	8,110	2,386	477	147
Typists	56,834	920,612	50,273	806,601	6,140	107,346	421	11,665
Weighers	27,619	11,268	18,453	7,918	7,904	2,862	1,262	488
Miscellaneous clerical workers	172,573	302,267	148,502	264,040	21,318	34,542	2,753	3,685
Not specified clerical workers	199,807	607,437	164,804	499,317	31,863	95,598	3,140	12,522
Clerical and kindred workers—allocated	207,108	550,101	177,880	461,179	26,301	76,767	2,927	12,155

TABLE 222.—DETAILED OCCUPATION OF EMPLOYED PERSONS BY RESIDENCE AND SEX: 1970—Continued

[Data based on sample, see text. For minimum base for derived figures (percent, median, etc.) and meaning of symbols, see text]

United States	Number							
	Total		Urban		Rural nonfarm		Rural farm	
	Male	Female	Male	Female	Male	Female	Male	Female
Craftsmen and kindred workers	10,088,483	521,147	7,240,176	387,058	2,596,093	118,761	252,214	15,328
Automobile accessories installers	6,430	294	5,395	245	980	44	55	5
Bakers	70,634	32,558	67,979	25,036	8,175	6,563	480	959
Blacksmiths	9,978	249	5,235	178	3,998	57	745	14
Boilermakers	29,174	371	21,608	273	7,077	87	489	11
Bookbinders	14,593	19,441	12,495	16,818	1,927	2,366	171	257
Brickmasons and stonemasons	160,208	2,034	107,783	1,399	47,998	559	4,427	76
Bulldozer operators	87,313	1,135	37,512	571	43,466	515	6,335	49
Cabinetmakers	64,100	3,413	45,101	1,733	17,123	1,506	1,876	174
Carpenters	831,363	10,978	491,949	6,552	297,621	3,849	41,793	577
Carpet installers	43,219	748	33,583	489	8,902	207	734	52
Cement and concrete finishers	64,675	904	49,116	666	14,145	205	1,414	33
Compositors and typesetters	135,496	23,907	114,361	17,939	19,836	5,295	1,299	673
Cranemen, derrickmen, and hoistmen	150,332	1,939	102,638	1,360	43,771	550	3,923	29
Decorators and window dressers	29,700	40,251	26,423	32,054	3,080	7,146	197	1,051
Dental laboratory technicians	20,586	6,022	18,690	5,183	1,793	747	103	92
Electricians	459,843	8,616	333,020	6,400	117,269	2,031	9,554	185
Electric power linemen and cablemen	100,448	1,444	62,206	900	35,185	491	3,058	53
Electrotypers and stereotypers	6,730	283	5,904	231	761	52	65	-
Engravers, except photoengravers	6,368	2,326	5,349	1,929	963	367	56	30
Excavating, grading, and road machine operators; except bulldozer	219,040	2,495	104,897	1,250	100,934	1,061	13,209	184
Floor layers, except tile setters	20,974	359	15,618	236	4,837	119	519	4
Foremen, n.e.c	1,462,820	127,607	1,068,450	96,226	363,794	28,123	30,576	3,258
Construction	150,420	1,613	98,260	1,051	47,325	496	4,835	66
Manufacturing	847,050	77,886	618,185	54,523	211,424	20,845	17,441	2,518
Durable goods	536,915	25,634	398,589	20,218	127,898	4,845	10,428	571
Nondurable goods, including not specified manufacturing	310,135	52,252	219,596	34,305	83,526	16,000	7,013	1,947
Transportation, communications, and other public utilities	150,283	5,704	117,409	4,995	30,868	687	2,006	22
All other industries	315,067	42,404	234,596	35,657	74,177	6,095	6,294	652
Forgemen and hammermen	14,649	724	10,454	528	3,733	174	462	22
Furniture and wood finishers	17,655	3,589	12,685	1,916	4,594	1,519	376	154
Furriers	2,206	461	2,028	389	174	62	4	10
Glaziers	24,241	779	19,815	480	4,077	262	349	37
Heat treaters, annealers, and temperers	19,711	598	15,248	427	4,006	166	457	5
Inspectors, scalers, and graders; log and lumber	15,188	1,864	5,991	848	8,452	939	745	77
Inspectors, n.e.c	108,953	8,855	81,344	6,494	24,931	2,099	2,678	262
Construction	22,331	334	13,890	215	7,471	110	970	9
Railroads and railway express service	24,376	247	18,643	186	5,308	52	425	9
Jewelers and watchmakers	32,839	4,280	28,231	3,408	4,388	819	220	53

Job and die setters, metal	84,489	2,221	62,484	1,595	19,586	675	2,419	81
Locomotive engineers	48,948	392	37,737	307	10,328	74	883	11
Locomotive firemen	12,869	151	9,629	130	2,993	21	247	--------
Machinists	366,899	11,754	272,936	8,430	85,820	2,911	8,143	404
Mechanics and repairmen	2,394,798	49,114	1,693,870	34,899	543,222	12,706	57,706	1,509
Air conditioning, heating, and refrigeration	116,531	1,061	88,520	748	26,254	296	1,757	17
Aircraft	136,214	4,001	112,282	3,451	22,050	509	1,882	41
Automobile body repairmen	106,306	1,332	72,979	935	31,184	351	2,143	46
Automobile mechanics	793,727	11,045	548,480	7,584	226,457	3,171	18,790	290
Data processing machine repairmen	30,844	864	26,767	760	3,971	90	106	5
Farm implement	33,141	416	13,825	150	14,971	224	4,345	42
Heavy equipment mechanics, including diesel	571,762	10,713	374,846	7,073	179,470	3,212	17,446	428
Household appliance and accessory installers and mechanics	120,284	2,538	92,890	1,821	25,471	633	1,923	85
Loom fixers	20,566	437	9,155	159	10,803	253	608	25
Office machine	38,812	688	32,720	550	5,733	127	350	11
Radio and television	132,438	5,011	103,080	3,812	27,286	1,071	2,066	128
Railroad and car shop	55,105	510	40,085	362	13,640	113	1,380	35
Miscellaneous mechanics and repairmen	168,804	7,790	130,638	5,595	35,406	1,919	1,760	276
Not specified mechanics and repairmen	70,264	2,707	47,597	1,890	20,526	737	2,141	80
Millers; grain, flour, and feed	6,973	157	2,352	70	3,443	48	1,178	39
Millwrights	77,519	903	51,120	609	24,143	261	2,256	33
Molders, metal	48,314	5,749	35,118	3,804	12,042	1,718	1,154	227
Motion picture projectionists	14,831	631	12,733	535	1,972	90	126	6
Opticians, and lens grinders and polishers	21,279	6,101	18,760	5,051	2,409	982	110	68
Painters, construction and maintenance	314,026	13,303	242,105	9,263	66,726	3,442	5,195	598
Paperhangers	9,149	1,111	7,531	419	1,499	477	119	215
Pattern and model makers, except paper	37,066	1,858	29,837	1,451	6,743	377	486	30
Photoengravers and lithographers	28,828	3,842	25,654	3,087	3,014	691	160	64
Piano and organ tuners and repairmen	6,538	330	5,342	190	1,096	107	101	33
Plasterers	28,275	435	22,830	368	4,996	51	449	15
Plumbers and pipe fitters	377,760	4,110	274,596	3,029	95,190	968	7,983	113
Power station operators	17,752	557	11,659	304	5,658	152	435	11
Pressmen and plate printers, printing	143,326	13,346	122,009	11,037	19,958	2,122	1,359	187
Rollers and finishers, metal	18,378	1,264	13,984	724	4,070	480	324	60
Roofers and slaters	57,539	735	44,660	597	11,809	135	1,070	3
Sheetmetal workers and tinsmiths	151,309	2,898	118,542	2,292	30,265	557	2,502	49
Shipfitters	10,478	123	7,920	109	2,353	14	205	--------
Shoe repairmen	24,820	6,343	20,905	3,966	3,704	2,026	211	351
Sign painters and letterers	17,334	1,609	14,035	1,247	3,107	293	192	69
Stationary engineers	168,250	2,467	119,473	1,678	44,049	710	4,737	79
Stone cutters and stone carvers	5,864	445	3,481	350	2,173	86	210	9
Structural metal craftsmen	73,098	868	52,863	666	18,644	194	1,591	8
Tailors	46,338	21,244	40,125	16,149	5,638	4,474	575	621
Telephone installers and repairmen	230,444	8,285	182,517	6,871	44,840	1,332	3,087	82
Telephone linemen and splicers	51,274	756	35,671	572	14,350	165	1,253	19
Tile setters	31,224	378	24,063	274	6,598	104	563	--------
Tool and die makers	197,754	4,191	154,194	3,187	40,042	917	3,518	87
Upholsterers	52,[illegible]1	9,955	38,299	5,668	13,042	3,670	803	617
Craftsmen and kindred workers, n.e.c.	77,878	7,249	59,475	4,377	16,966	2,492	1,437	380
Former members of the Armed Forces	369	69	222	57	129	12	18	--------
Craftsmen and kindred workers–allocated	608,855	27,679	460,338	21,438	125,477	5,347	13,040	894

TABLE 222.—DETAILED OCCUPATION OF EMPLOYED PERSONS BY RESIDENCE AND SEX: 1970—Continued

[Data based on sample, see text. For minimum base for derived figures (percent, median, etc.) and meaning of symbols, see text]

United States	Number							
	Total		Urban		Rural nonfarm		Rural farm	
	Male	Female	Male	Female	Male	Female	Male	Female
Operatives, except transport	6, 483, 532	4, 014, 993	4, 534, 949	2, 779, 373	1, 756, 301	1, 099, 145	192, 282	136, 475
Asbestos and insulation workers	23, 842	498	17, 676	406	5, 728	92	438	-
Assemblers	489, 296	454, 611	366, 131	343, 944	108, 235	98, 889	14, 930	11, 778
Blasters and powdermen	6, 776	311	2, 842	165	[illegible], 689	133	245	13
Bottling and canning operatives	30, 568	15, 909	23, 644	10, 894	5, 935	4, 337	989	678
Chainmen, rodmen, and axmen; surveying	10, 398	163	6, 682	99	3, 295	50	421	14
Checkers, examiners, and inspectors; manufacturing	362, 643	327, 530	272, 621	223, 435	81, 391	92, 665	8, 631	11, 430
Clothing ironers and pressers	44, 806	136, 394	38, 707	103, 926	5, 615	29, 378	484	3, 090
Cutting operatives, n.e.c	128, 706	45, 530	89, 951	30, 186	34, 924	13, 858	3, 831	1, 486
Dressmakers and seamstresses, except factory	4, 706	92, 114	4, 050	76, 371	588	13, 587	68	2, 156
Drillers, earth	53, 803	3, 405	24, 904	2, 370	28, 099	903	2, 800	132
Dry wall installers and lathers	43, 134	566	32, 349	422	9, 940	138	845	6
Dyers	21, 806	2, 031	11, 929	1, 192	9, 178	777	699	62
Filers, polishers, sanders, and buffers	90, 508	23, 665	61, 641	14, 106	25, 994	8, 712	2, 873	847
Furnacemen, smeltermen, and pourers	62, 455	2, 761	45, 648	2, 123	15, 417	615	1, 390	23
Garage workers and gas station attendants	412, 221	12, 084	286, 004	7, 152	113, 888	4, 555	12329	377
Graders and sorters, manufacturing	13, 656	24, 352	8, 652	15, 068	4, 323	8, 138	681	1, 146
Produce graders and packers, except factory and farm	7, 174	19, 356	4, 467	11, 038	2, 258	6, 936	449	1, 382
Heaters, metal	6, 551	224	5, 009	180	1, 407	44	135	-
Laundry and drycleaning operatives, n.e.c	61, 353	108, 022	52, 626	86, 675	8, 101	19, 103	626	2, 244
Meat cutters and butchers, except manufacturing	190, 435	10, 446	146, 825	7, 209	40, 285	2, 884	3, 235	353
Meat cutters and butchers, manufacturing	49, 883	17, 608	34, 463	9, 413	12, 956	7, 183	2, 464	1, 012
Meat wrappers, retail trade	2, 983	41, 112	2, 167	31, 355	701	8, 792	115	965
Metal platers	28, 286	2, 828	22, 956	2, 106	4, 882	619	448	103
Milliners	183	1, 855	172	1, 596	11	231	-	28
Mine operatives, n.e.c	151, 697	3, 359	61, 946	2, 000	84, 532	1, 220	5, 219	139
Mixing operatives	65, 443	2, 806	45, 397	1, 912	17, 461	762	2, 585	132
Oilers and greasers, except auto	44, 007	1, 496	28, 196	1, 084	14, 332	370	1, 479	42
Packers and wrappers, except meat and produce	201, 449	314, 057	150, 628	237, 583	45, 171	67, 852	5, 650	8, 632
Painters, manufactured articles	97, 506	16, 457	72, 398	11, 218	22, 819	4, 711	2, 289	528
Photographic process workers	33, 734	28, 780	29, 968	24, 887	3, 492	3, 464	274	429
Precision machine operatives	373, 619	37, 474	276, 058	28, 153	87, 882	8, 439	9, 679	882
Drill press operatives	53, 788	14, 831	49, 039	11, 537	12, 212	2, 979	1, 537	315
Grinding machine operatives	125, 432	7, 882	92, 519	5, 737	29, 782	1, 963	3, 131	182
Lathe and milling machine operatives	133, 209	7, 566	99, 134	5, 531	30, 668	1, 867	3, 407	168
Precision machine operatives, n.e.c	61, 190	7, 195	44, 356	5, 348	15, 220	1, 630	1, 604	217
Punch and stamping press operatives	111, 033	48, 377	82, 685	36, 377	24, 986	10, 788	3, 332	1, 212
Riveters and fasteners	14, 253	10, 941	8, 837	6, 859	4, 771	3, 555	645	527
Sailors and deckhands	24, 241	466	18, 246	320	5, 619	141	336	5
Sawyers	91, 036	8, 717	37, 310	4, 806	47, 525	3, 453	6, 201	458
Sewers and stitchers	54, 686	812, 715	40, 188	501, 512	12, 957	271, 868	1, 541	39, 306
Shoemaking machine operatives	24, 064	36, 419	[illegible]	19, 850	8, 641	14, 170	963	2, 099

Soldereers	7,400	32,851	5,929	26,730	1,329	5,599	142	522
Stationary firemen	89,474	4,813	60,942	3,022	25,631	1,580	2,901	211
Textile operatives	196,730	232,578	92,413	113,388	97,217	111,324	7,100	7,866
Carding, lapping, and combing operatives	14,859	4,565	6,545	2,228	7,899	2,166	415	171
Knitters, loopers, and toppers	10,317	18,089	6,466	9,462	3,532	7,940	319	687
Spinners, twisters, and winders	56,867	99,222	23,778	46,904	31,065	49,242	2,024	3,076
Weavers	23,461	26,680	11,270	12,515	11,413	13,268	778	897
Textile operatives, n.e.c	91,226	84,022	44,354	42,279	43,308	38,708	3,564	3,035
Welders and flamecutters	506,429	31,273	337,338	21,464	152,022	8,677	17,069	1,132
Winding operatives, n.e.c	29,800	30,939	20,535	20,603	8,567	9,263	698	1,073
Miscellaneous and not specified operatives	1,806,132	714,372	1,267,369	505,705	483,354	186,231	55,409	22,436
Occupation:								
Machine operatives, miscellaneous specified	733,381	285,810	503,598	198,209	205,596	78,040	24,187	9,561
Machine operatives, not specified	414,753	151,943	298,521	115,193	104,818	32,798	11,414	3,952
Miscellaneous operatives	442,680	187,750	318,244	126,990	112,242	54,225	12,194	6,535
Not specified operatives	215,318	88,869	147,006	65,313	60,698	21,168	7,614	2,388
Industry:								
Manufacturing	1,512,349	629,011	1,055,602	440,747	409,911	168,258	46,836	20,006
Durable goods	879,534	305,308	616,608	216,551	236,795	79,866	26,131	8,891
Lumber and wood products, except furniture	61,930	10,357	25,947	5,053	32,234	4,891	2,749	413
Furniture and fixtures	36,199	13,324	20,071	7,183	14,436	5,532	1,692	609
Stone, clay, and glass products	81,736	18,062	51,964	11,763	27,177	5,833	2,595	466
Primary metal industries	161,762	11,477	119,304	7,872	39,052	3,311	3,406	294
Blast furnaces, steel works, and rolling and finishing mills	58,155	1,241	46,890	1,063	10,659	174	606	4
Fabricated metal industries, including not specified metal	105,699	29,962	80,263	22,437	22,814	6,730	2,622	795
Machinery, except electrical	129,350	23,599	92,406	17,283	32,756	5,715	4,188	601
Electrical machinery, equipment, and supplies	88,993	105,031	65,572	75,848	20,915	26,051	2,506	3,132
Transportation equipment	130,989	23,041	97,386	16,439	29,983	5,812	3,620	790
Motor vehicles and motor vehicle equipment	72,939	13,382	53,993	9,355	16,947	3,574	1,999	453
Professional and photographic equipment, and watches	19,865	18,049	15,481	13,131	4,114	4,418	270	500
Ordinance	15,619	7,246	11,391	5,018	3,795	1,968	433	260
Miscellaneous manufacturing industries	43,383	44,113	33,802	33,763	8,590	9,328	991	1,022
Durable goods—allocated	4,009	1,047	3,021	761	929	277	59	9
Nondurable goods	621,270	317,041	430,801	219,277	170,183	86,869	20,286	10,895
Food and kindred products	135,783	63,259	90,877	38,840	37,554	21,551	7,352	2,868
Tobacco manufactures	9,256	8,665	6,061	6,698	2,859	1,774	336	193
Apparel and other fabricated textile products	22,463	67,853	14,799	42,713	6,850	21,978	814	3,162
Paper and allied products	134,521	40,063	87,486	31,589	43,437	7,807	3,598	667
Printing, publishing, and allied industries	41,866	33,771	34,800	27,619	6,395	5,515	671	637
Chemicals and allied products	121,837	23,527	85,027	17,587	33,867	5,447	2,943	493
Petroleum and cool products	28,141	585	22,030	443	5,588	134	523	8
Rubber and miscellaneous plastic products	107,223	53,992	75,328	37,327	28,432	14,871	3,463	1,794
Leather and leather products	18,126	23,766	12,912	15,464	4,654	7,315	560	987
Nondurable goods—allocated	2,054	1,560	1,481	997	547	477	26	86
Not specified manufacturing industries	11,545	6,662	8,193	4,919	2,933	1,523	419	220
Nonmanufacturing industries	293,783	85,361	211,767	64,958	73,443	17,973	8,573	2,430
Construction	31,854	966	19,501	674	10,965	261	1,388	31
Transportation, communications, and other public utilities	62,617	3,918	46,247	2,849	15,036	914	1,334	155
Wholesale and retail trade	102,603	43,231	74,141	32,093	25,155	9,800	3,307	1,338
Business and repair services	44,790	7,438	34,208	5,971	9,860	1,303	722	164
Public administration	18,780	3,529	14,204	2,873	4,045	600	531	56
All other industries	33,139	26,279	23,466	20,498	8,382	5,095	1,291	686
Operatives, except transport—allocated	414,657	302,717	321,950	230,439	83,153	62,759	9,554	9,519

TABLE 222.—DETAILED OCCUPATION OF EMPLOYED PERSONS BY RESIDENCE AND SEX: 1970—Continued

[Data based on sample, see text. For minimum base for derived figures (percent, median, etc.) and meaning of symbols, see text]

United States	Number							
	Total		Urban		Rural nonfarm		Rural farm	
	Male	Female	Male	Female	Male	Female	Male	Female
Transport equipment operatives	2, 825, 883	132, 052	2, 009, 765	79, 845	725, 387	43, 415	90, 731	8, 792
Boatmen and canalmen	4, 631	324	2, 743	182	1, 757	130	131	12
Bus drivers	169, 842	66, 000	113, 524	32, 127	42, 722	27, 326	13, 696	6, 547
Conductors and motormen, urban rail transit	9, 322	235	9, 010	187	298	43	14	5
Deliverymen and routemen	600, 609	19, 691	467, 585	15, 411	120, 565	3, 823	12, 459	457
Fork lift and tow motor operatives	213, 017	3, 842	148, 642	2, 479	58, 011	1, 196	6, 364	167
Motormen; mine, factory, logging camp, etc	9, 642	153	3, 979	78	5, 465	71	198	4
Parking attendants	29, 395	1, 096	27, 579	960	1, 660	132	156	4
Railroad brakemen	46, 844	537	33, 757	415	12, 151	112	936	10
Railroad switchmen	51, 396	867	41, 776	688	8, 760	158	860	21
Taxicab drivers and chauffeurs	143, 132	8, 512	129, 808	6, 915	12, 507	1, 456	817	141
Truck drivers	1, 359, 505	20, 120	884, 805	13, 363	424, 214	5, 919	50, 486	838
Transport equipment operatives—allocated	188, 448	10, 675	146, 557	7, 040	37, 277	3, 049	4, 614	586
Laborers, except farm	3, 146, 982	284, 300	2, 226, 213	195, 695	826, 693	78, 445	94, 076	10, 160
Animal caretakers, except farm	31, 503	14, 763	19, 265	9, 323	10, 033	4, 611	2, 205	829
Carpenters' helpers	42, 525	953	24, 602	619	15, 740	296	2, 183	38
Construction laborers, except carpenters' helpers	547, 381	9, 571	357, 188	6, 446	167, 906	2, 781	22, 287	344
Fishermen and oystermen	25, 959	1, 147	10, 832	447	14, 600	639	527	61
Freight and material handlers	500, 803	38, 760	359, 322	26, 289	126, 934	11, 277	14, 547	1, 194
Garbage collectors	70, 260	1, 157	56, 577	869	12, 915	274	768	14
Gardeners and groundskeepers, except farm	286, 396	8, 424	206, 547	5, 566	73, 236	2, 483	6, 613	375
Longshoremen and stevedores	42, 349	705	37, 799	643	4, 149	57	401	5
Lumbermen, raftsmen, and woodchoppers	77, 741	1, 766	13, 870	553	57, 066	1, 084	6, 805	129
Stock handlers	481, 815	104, 292	388, 260	74, 442	84, 199	26, 374	9, 256	3, 476
Teamsters	7, 138	301	2, 381	163	4, 111	108	646	30
Vehicle washers and equipment cleaners	104, 384	12, 155	82, 766	8, 961	19, 710	2, 908	1, 908	286
Warehousemen, n.e.c	102, 812	3, 861	85, 782	3, 282	15, 543	524	1, 487	55
Miscellaneous and not specified laborers	554, 687	66, 252	368, 516	42, 858	167, 388	20, 744	18, 783	2, 650
Occupation:								
Miscellaneous laborers	184, 029	18, 199	121, 787	11, 968	56, 395	5, 581	5, 847	650
Not specified laborers	370, 658	48, 053	246, 729	30, 890	110, 993	15, 163	12, 936	2, 000

Industry:								
Manufacturing	281, 889	38, 239	185, 621	23, 352	86, 568	13, 125	9, 700	1, 762
Durable goods	192, 539	20, 806	129, 281	13, 233	57, 495	6, 708	5, 763	865
Lumber and wood products, except furniture	21, 712	1, 561	8, 028	635	12, 421	821	1, 263	105
Furniture and fixtures	4, 761	1, 430	2, 538	708	1, 932	648	291	74
Stone, clay and glass products	20, 356	1, 473	11, 546	896	8, 110	546	700	31
Primary metal industries	69, 147	1, 673	53, 311	1, 235	14, 858	411	978	27
Blast furnaces, steal woks, and rolling and finishing mills	39, 394	692	32, 091	590	6, 983	102	320	----------
Fabricated metal industries, including not specified metal	20, 270	3, 912	14, 522	2, 870	5, 234	936	514	106
Machinery, except electrical	16, 603	1, 337	11, 305	897	4, 610	405	688	35
Electrical machinery, equipment, and supplies	8, 251	3, 794	5, 537	2, 348	2, 421	1, 237	293	209
Transportation equipment	21, 688	1, 647	15, 560	1, 010	5, 451	573	677	64
Motor vehicles and motor vehicle equipment	11, 246	735	8, 524	487	2, 403	218	319	30
Professional and photographic equipment, and watches	1, 186	740	899	511	254	204	33	25
Ordnance	2, 763	1, 135	1, 825	744	796	342	142	49
Miscellaneous manufacturing industries	3, 917	2, 008	2, 789	1, 292	959	576	169	140
Durable goods—allocated	1, 885	96	1, 421	87	449	9	15	----------
Nondurable goods	87, 379	17, 063	54, 941	9, 906	28, 570	6, 295	3, 868	862
Food and kindred products	33, 589	5, 354	20, 803	2, 837	10, 846	2, 160	1, 940	357
Tobacco manufactures	1, 128	343	827	257	258	86	43	----------
Textile mill products	8, 583	2, 401	4, 207	1, 166	4, 020	1, 131	356	104
Apparel and other fabricated textile products	1, 705	1, 654	1, 107	893	496	663	102	98
Paper and allied products	12, 141	1, 267	7, 129	880	4, 631	337	381	50
Printing, publishing, and allied industries	3, 135	1, 065	2, 568	789	501	211	66	65
Chemicals and allied products	12, 727	1, 328	8, 432	882	3, 810	404	485	42
Petroleum and coal products	3, 593	95	2, 656	87	843	8	94	----------
Rubber and miscellaneous plastic products	7, 396	2, 073	5, 074	1, 345	2, 029	660	293	68
Leather and leather products	2, 446	1, 302	1, 428	657	943	579	75	66
Nondurable goods—allocated	936	181	710	113	193	56	33	12
Not specified manufacturing industries	1, 971	370	1, 399	213	503	122	69	35
Nonmanufacturing industries	272, 798	28, 013	182, 895	19, 506	80, 820	7, 619	9, 083	888
Transportation, communications, and other public utilities	96, 379	2, 952	64, 396	2, 033	29, 082	836	2, 901	83
Wholesale and retail trade	78, 068	10, 364	52, 518	7, 013	22, 351	3, 010	3, 199	341
Business and repair services	17, 846	2, 015	13, 998	1, 703	3, 571	298	277	14
Public administration	17, 374	1, 352	11, 821	901	4, 913	378	640	73
All other industries	63, 131	11, 330	40, 162	7, 856	20, 903	3, 097	2, 066	377
Laborers, except farm—allocated	271, 229	20, 193	212, 406	15, 234	53, 163	4, 285	5, 660	674
Farmers and farm managers	1, 347, 974	70, 772	90, 120	10, 982	212, 467	11, 973	1, 045, 387	47, 817
Farmers, owners and tenants	1, 220, 432	58, 988	62, 093	5, 596	170, 523	8, 944	987, 816	44, 448
Farm managers	57, 986	2, 570	11, 170	755	19, 993	838	26, 823	977
Farmers and farm managers—allocated	69, 556	9, 214	16, 857	4, 631	21, 951	2, 191	30, 748	2, 392
Farm laborers and farm foremen	795, 008	153, 301	182, 645	46, 542	386, 856	58, 018	225, 507	48, 741
Farm foremen	30, 740	1, 882	8, 522	922	15, 500	729	6, 718	231
Farm laborers, wage workers	648, 316	94, 903	140, 612	32, 394	341, 417	48, 521	166, 287	13, 988
Farm laborers, unpaid family workers	55, 510	37, 232	4, 803	2, 239	8, 036	3, 264	42, 671	31, 729
Farm service laborers, self-employed	3, 477	506	1, 183	335	1, 642	121	652	50
Farm laborers and farm foremen—allocated	56, 965	18, 778	27, 525	10, 652	20, 261	5, 383	9, 179	2, 743

TABLE 222.—DETAILED OCCUPATION OF EMPLOYED PERSONS BY RESIDENCE AND SEX: 1970—Continued

[Data based on sample, see text. For minimum base for derived figures (percent, median, etc.) and meaning of symbols, see text]

United States	Number							
	Total		Urban		Rural nonfarm		Rural farm	
	Male	Female	Male	Female	Male	Female	Male	Female
Service workers, except private household	3, 837, 317	4, 790, 043	3, 142, 602	3, 647, 560	635, 377	1, 012, 764	59, 338	129, 719
Cleaning service workers	1, 265, 664	595, 838	983, 490	460, 529	255, 005	122, 513	27, 169	12, 796
Chambermaids and maids, except private household	10, 107	186, 660	8, 031	142, 482	1, 815	40, 485	261	3, 693
Cleaners and charwomen	186, 640	252, 423	158, 616	201, 414	25, 702	45, 818	2, 322	5, 191
Janitors and sextons	1, 068, 917	156, 755	816, 843	116, 633	227, 488	36, 210	24, 586	3, 912
Food service workers	863, 694	1, 909, 879	744, 930	1, 399, 820	111, 182	452, 139	7, 582	57, 920
Bartenders	149, 388	39, 381	122, 810	26, 389	25, 255	12, 298	1, 323	694
Busboys	80, 884	13, 528	72, 331	11, 529	8, 011	1, 806	542	193
Cooks, except private household	305, 492	523, 485	263, 600	331, 066	39, 195	165, 940	2, 697	26, 479
Dishwashers	102, 119	63, 991	87, 627	45, 131	13, 499	16, 907	993	1, 953
Food counter and fountain workers	35, 818	115, 563	32, 200	97, 314	3, 408	16, 768	210	1, 481
Waiters	111, 934	907, 466	99, 250	695, 142	11, 742	191, 035	942	21, 289
Food service workers, n.e.c., except private household	78, 059	246, 465	67, 112	193, 249	10, 072	47, 385	875	5, 831
Health service workers	138, 846	1, 041, 667	107, 631	802, 542	27, 926	207, 510	3, 289	31, 615
Dental assistants	1, 866	86, 309	1, 520	72, 389	284	12, 346	62	1, 574
Health aides, except nursing	18, 305	100, 602	15, 585	85, 290	2, 483	13, 491	237	1, 821
Health trainees	1, 106	16, 549	860	15, 190	177	1, 193	69	166
Lay midwives	138	537	108	407	25	110	5	20
Nursing aides, orderlies, and attendants	108, 946	609, 022	83, 022	448, 615	23, 198	138, 096	2, 726	22, 311
Practical nurses	8, 485	228, 648	6, 536	180, 651	1, 759	42, 274	190	5, 723

Personal service workers	385, 223	768, 985	317, 035	604, 169	63, 185	147, 699	5, 003	17, 117
Airline stewardesses	1, 364	31, 290	1, 259	30, 362	101	884	4	44
Attendants, recreation and amusement	51, 757	16, 335	43, 129	13, 669	8, 141	2, 477	487	189
Attendants, personal service, n.e.c.	22, 530	37, 262	19, 375	32, 576	2, 939	4, 282	216	404
Baggage porters and bellhops	18, 158	482	16, 446	418	1, 615	64	97	---
Barbers	159, 442	7, 814	122, 207	6, 444	34, 427	1, 276	2, 808	94
Boarding and lodging housekeepers	2, 087	5, 284	1, 277	4, 137	770	1, 071	40	76
Bootblacks	3, 270	389	3, 003	276	234	98	33	15
Child care workers, except private household	9, 196	122, 062	6, 222	95, 019	2, 718	24, 752	256	2, 291
Elevator operators	25, 643	9, 561	23, 336	9, 089	1, 999	435	308	37
Hairdressers and cosmetologists	46, 663	424, 873	41, 315	320, 594	4, 918	92, 785	430	11, 494
Housekeepers, except private household	29, 076	74, 256	24, 935	58, 399	3, 924	13, 997	217	1, 860
School monitors	2, 539	23, 468	2, 249	19, 358	261	3, 389	29	221
Ushers, recreation and amusement	9, 906	4, 197	9, 281	3, 959	583	208	42	30
Welfare service aides	3, 592	11, 712	3, 001	9, 869	555	1, 981	36	362
Protective service workers	894, 705	57, 532	742, 641	50, 965	139, 374	6, 021	12, 690	555
Crossing guards and bridge tenders	17, 726	23, 919	14, 290	22, 440	3, 201	1, 413	235	66
Firemen, fire protection	174, 922	1, 976	158, 199	1, 670	15, 509	242	1, 214	64
Guards and watchmen	302, 002	16, 262	233, 045	13, 312	61, 377	2, 635	7, 580	315
Marshals and constables	4, 913	203	2, 902	152	1, 903	51	108	---
Policemen and detectives	362, 396	13, 098	311, 403	11, 748	48, 483	1, 268	2, 510	82
Sheriffs and bailiffs	32, 746	2, 074	22, 802	1, 643	8, 901	403	1, 043	28
Service workers, except private household—allocated	289, 185	416, 142	246, 875	329, 535	38, 705	76, 891	3, 605	9, 716
Private household workers	36, 037	1, 109, 854	28, 232	819, 800	7, 090	258, 715	715	31, 339
Occupation:								
Child care workers, private household	4, 010	208, 177	2, 932	143, 942	977	56, 566	101	7, 669
Cooks, private household	1, 803	29, 494	1, 517	22, 659	255	6, 175	31	660
Housekeepers, private household	3, 773	96, 922	2, 898	69, 316	791	24, 096	84	3, 510
Laundresses, private household	545	11, 206	430	8, 110	94	2, 825	21	271
Maids and servants, private household	22, 686	644, 178	17, 650	475, 820	4, 578	150, 534	458	17, 824
Private household workers—allocated	3, 220	119, 877	2, 805	99, 953	395	18, 519	20	1, 405
Living arrangement:								
Living in	3, 022	72, 281	2, 408	59, 000	538	10, 989	76	2, 292
Living out	33, 015	1, 037, 573	25, 824	760, 800	6, 552	247, 726	639	29, 047

TABLE 2.—PERCENTAGE DISTRIBUTION OF FEDERAL OUTLAYS BY PROGRAM AREA, IN METROPOLITAN AND NONMETROPOLITAN COUNTIES, FISCAL 1976

	Metropolitan counties							Nonmetropolitan counties						
			Greater						Urbanized		Less urbanized		Totally rural	
Program area	U.S. total	Total	Total	Core	Fringe	Medium	Lesser	Total	Adjacent	Non-adjacent	Adjacent	Non-adjacent	Adjacent	Non-adjacent
		Percentage of U.S. total												
Population, 1975 (millions)	213.0	72.4	40.5	27.9	12.6	23.0	8.8	27.6	7.0	3.8	6.7	6.7	1.2	2.2
Human resource development (millions of dollars):														
Public assistance, social security, rehabilitation	112,520.8	71.7	40.6	30.4	10.2	22.4	8.7	28.3	7.0	3.7	6.7	7.2	1.3	2.4
Health payments and services	32,752.3	76.6	49.8	41.5	8.3	19.2	7.6	23.4	5.9	2.9	5.6	6.0	1.0	2.0
Education	11,062.4	72.9	39.6	30.8	8.8	23.6	9.7	27.1	6.7	4.4	5.9	6.7	1.0	2.4
Manpower training and employment opportunities	8,485.2	85.2	44.5	37.5	7.0	30.3	10.4	14.8	5.6	2.4	2.3	3.1	.3	1.1
Total	164,820.7	73.5	42.6	33.0	9.6	22.3	8.6	26.5	6.7	3.5	6.2	6.7	1.1	2.2
Housing:														
Department of Agriculture	2,476.3	29.3	7.2	1.3	5.9	12.8	9.2	70.7	11.4	7.3	17.4	21.9	4.4	8.4
Department of Housing and Urban Development	6,668.4	91.3	51.4	38.6	12.8	31.8	8.0	8.7	2.9	2.0	1.6	1.7	.2	.3
Department of Interior	13.8	25.4	10.2	6.6	3.6	10.8	4.4	74.6	7.8	13.1	11.0	22.3	2.0	18.4
Veterans Administration	10,436.1	89.2	51.9	34.3	17.5	27.0	10.3	10.8	4.1	2.7	1.9	1.6	.3	.3
Total	19,594.6	82.3	46.0	31.6	14.5	26.8	9.4	17.7	4.6	3.0	3.8	4.2	.8	1.3

Community and industrial development:														
Community development	13,098.0	63.3	32.1	26.5	5.7	23.2	7.9	36.7	7.1	3.9	9.5	9.8	2.0	4.4
Industrial development	2,324.7	62.0	33.4	25.3	8.2	19.4	9.2	38.0	6.4	5.0	8.5	12.3	1.4	4.3
Transportation	9,365.3	74.2	43.6	35.9	7.7	21.8	8.8	25.8	4.9	3.3	5.2	7.9	1.1	3.4
Environmental protection	4,606.6	80.1	46.9	28.9	18.0	23.8	9.3	19.9	[illegible]	2.6	3.3	4.3	.9	1.1
Total	29,394.6	69.3	38.2	29.8	8.4	22.6	8.5	30.7	6.5	3.6	7.1	8.6	1.5	3.5
Agriculture and natural resources:														
Agricultural assistance and cropland adjustment	458.5	15.0	2.6	1.2	1.4	5.1	7.2	85.0	4.3	7.2	15.4	32.6	6.2	19.2
Agriculture and fish research and services	4,100.5	30.9	11.4	7.3	4.1	11.7	7.8	69.1	8.1	7.7	16.3	21.4	4.3	11.2
Natural resources, conservation, recreation, and wildlife	4,336.4	52.1	31.5	17.3	14.2	12.4	8.1	47.9	6.0	8.7	6.9	15.9	2.0	8.5
Total	8,895.4	40.4	20.7	11.8	8.9	11.7	7.9	59.6	6.9	8.2	11.7	19.3	3.3	10.3
Defense and space:														
Defense contracts	44,887.5	87.8	[illegible]	47.4	11.8	20.7	8.0	12.2	5.3	2.8	1.6	1.5	.3	.6
Defense payroll	36,527.7	80.0	31.7	20.1	11.6	32.2	16.0	20.0	7.7	7.9	1.9	1.9	.2	.5
National Aeronautics and Space Admin.	3,561.2	97.6	77.2	66.2	11.0	13.4	7.0	2.4	.6	.2	1.0	.1	0	.6
Total	84,976.4	84.9	48.1	36.4	11.7	25.3	11.4	15.1	6.1	4.9	1.7	1.6	.2	.6

Source: Economics, Statistics, and Cooperatives Service, U.S. Department of Agriculture, Federal Outlays in Fiscal 1976: A Comparison of Metropolitan and Nonmetropolitan Areas, Rural Development Research Report No. 1, August 1978.

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TRANSPORTATION IN RURAL AMERICA[1]

INTRODUCTION

Rural transportation problems can no longer be viewed simply as a matter of improving farm-to-market roads and regulating carriers of commodities. Changes in the distribution of population and economic activity—and changes in definitions of "rural"—have affected the structure and dimensions of requirements for rural transport services. While traditional agriculturally oriented interests remain an important element in providing rural transportation, the mobility of people and goods in rural areas has become a concern of a much wider range of interests as well.

Clearly, persons and enterprises in rural areas are concerned with the cost, quality, and availability of transport services. A fact sometimes overlooked, however, is that persons and enterprises within urban areas are also heavily dependent on the efficiency and costs of rural transport services, if desired urban lifestyles are to remain feasible. A sound and effective transportation system in rural areas seems truly in the national economic and social interest; rural transportation should not be addressed solely as an isolated set of problems. The continuing importance of rural transportation problems is demonstrated by passage of Public Law 95–580 in 1978 that requires a comprehensive study of rural transportation problems.

This paper discusses how the changing concept of the term "rural" places more emphasis on nonagricultural aspects of rural transportation than did earlier concepts of "rural." Next, the paper summarizes the major persistent problems and issues associated with rural transportation, followed by a discussion of major issues by mode of transport. The last section of the paper discusses the role of transportation in the economic development of rural areas.

CHANGING CONCEPTS OF THE TERM "RURAL"

Producers and carriers of agricultural products were, in the past, the dominant interests concerned with the provision of rural transport services. In 1920, the decennial census of population showed that census-defined rural areas[2] were populated predominantly by persons engaged in agriculture. By 1972, however, farming accounted for only 12.4 percent of nonmetropolitan earnings. A broader range of interests of those living in open areas and in towns under 2,500 population are becoming more recognized.

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[1] By Dr. Leon M. Cole, senior specialist in transportation, and Dr. Stephen J. Thompson, analyst in transportation, Economics Division, Congressional Research Service, the Library of Congress. This is a revision of a paper by the same title dated Sept. 10, 1976, by the same authors.

[2] "According to the definition adopted for use in the 1970 census, the urban population comprises all persons living in urbanized areas and in places of 2,500 inhabitants or more outside urbanized areas. The population not classified as urban constitutes the rural population." U.S. Bureau of the Census, "Census of Population," pt. 1, U.S. Summary—Sec. 2, app. 4, and app. 6.

Congress has broadened both the geographic area and the scope of rural-oriented legislation. In drafting eligibility requirements for many Federal programs for rural areas, Congress has moved away from the smalltown criteria and agricultural relevancy requirements. For example, the Rural Development Act of 1972 authorizes assistance to rural areas in the form of industrial and business loans and grants in cities under 50,000 population, and sets priorities for location of new Federal facilities in cities under 50,000 population. The act also authorizes grants and loans for water and wastewater systems and planning, other essential community facilities, and development planning activities in the open countryside and small cities up to 10,000 population, among other provisions.

In effect, Congress has defined rural areas (for some purposes) to be all areas outside the standard metropolitan statistical areas (SMSA's), bringing the term "rural" to mean "nonmetropolitan." For purposes of this discussion, then, all areas, including urban places, which are outside SMSA's are considered rural, and "rural transportation" is all transportation except transportation within SMSA's.

SUMMARY OF PERSISTENT RURAL TRANSPORTATION ISSUES

Any overview of major issues in rural transportation should warn at the outset of the diversity within rural areas, in topography, climate, economic activity, rate and nature of change, and population characteristics. Seldom is there a single, well-defined concensus of a problem or a position on an issue which can be nicely represented as "the rural interest." Statements and position papers of a large cross section of rural-oriented individuals and organizations, stimulated by a number of congressional and Interstate Commerce Commission (ICC) hearings, does reveal, however, some salient problems which were mentioned and discussed most often.[3] These issues include:

Rail abandonment prospects for low-traffic lines, particularly under the Regional Rail Reorganization Act of 1973;

Prospects for rural road construction and improvement under the ongoing realinement of the Federal-aid secondary system, mandated by the Federal-Aid Highway Act of 1973, to eliminate Federal aid for a large proportion of the rural road system previously covered;

Highway problems created by narrow and worn bridges, blind curves, unprotected railroad grade crossings, and narrow, turtleback roads, as well as the absence of quick, high-quality emergency medical care for accident victims in most rural areas;

Fuel costs for trucks, automobiles, and schoolbuses;

Lack of public transportation, particularly for the very young, the elderly, and the handicapped, forcing reliance on private automobiles or relatively expensive taxi service, if available;

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[3] The National Area Development Institute, "Meeting Rural Transportation Needs," A report prepared for the Library of Congress, Congressional Research Service, by W. E. Bivens III and J. D. Leslie, Lexington, Ky., December 1974. Much of the material herein is based on the report.

Distances to airports, increased costs of air transportation, decreased frequency of scheduled service by commercial air carriers, and general aviation safety and navigation aids and regulations;

Trade-offs among lower speed limits, increased truck sizes and weights, and gateway route requirements for regulated motor carriers;

Railcar shortages, deferrals of rail line maintenance, physical (or de facto, as opposed to legal) abandonment of rail lines and generally deteriorating service for small and isolated shippers; and

Discriminatory freight rate structures, by region and by commodity.

The above listing does not indicate relative weightings of importance, and no single list can precisely present problems or units as a complete set of mutually exclusive elements. The list is useful, however, in providing an indication of the problems considered most important as revealed by a rather extensive variety of testimony and other published material. The examination of rural transport issues which follows discusses the basic transport problems of continuing concern to all shipper interests, the cost and quality of transport services, and the effect they have on location and rural economic development. Then, issues and problems are summarized by major mode of transportation, since most data are compiled in those categories.

Costs and service to shippers

Of course, cost and quality of transport service are underlying concerns of anyone engaged in or relying upon the provision of such services, with respect to broadly defined rural interests, however, some particular continuing issues can be delineated.

Transportation costs can decisively affect the competitive position of the shipper, can alter the structure of an industry, and can help determine the geographic distribution of economic activities and population. Transportation has long been considered an important factor influencing the location of economic activity, and freight rate structures do exert influence upon the location of industries and economic activities not otherwise tied to a specific locale. In agriculture, the cost and quality of available transport services play a sometimes critical role in the competitive positions of agricultural industries in different regions.

Transport service is particularly significant for agricultural inputs, such as fertilizer, and outputs, such as grain, and affects the location of certain types of processing and handling facilities and the level of agricultural income. The relationship of transportation rates on raw versus processed products and the cost efficiencies involved in moving raw and processed products carry major implications for rural development. For example, in the mid-1960's, when lower "Big John" hopper railcar rates were approved for wheat and the rates for transporting flour remained the same, flour milling declined in the Great Plains region.[4]

Some allege that rural freight transport services have been geared increasingly to the relative cost and service advantages of the large shipper, who can exercise options such as (in effect) renting complete trains on an annual basis or operating a private truck fleet, barge tow, or ocean-going vessel. Yet, given trends toward large special-purpose cars such as jumbo covered hopper cars, multiple-car rates, unit trains, and the like, small shippers often have been the most in need of alternatives to rail shipment. An increased dependence upon trucking where good roads exist, particularly for the short haul, has resulted.

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[4] Ibid., p. 18.

Regulatory provisions also affect the search for transportation options. For example, unprocessed meat is not an ICC-regulated commodity when transported by truck but it is regulated when transported by rail. Thus competition for the traffic is between regulated railroads, private motor carriage, ICC-regulated motor carriers who are not regulated with respect to this particular traffic, and for-hire motor carriers who are not subject to any ICC regulations on this or any other traffic that they carry but are not allowed to carry any ICC-regulated commodities. Trucks have dominated the competition, as railroads have not replaced refrigerated cars and trailers, which have become unprofitable investments under traditional rate structures.

Since meat and meat products in increasing proportions are carried by truck, truck rates assume major importance, along with the supply of livestock, in the location of slaughter plants. Truck transportation charges are, in part, a function of the probability of obtaining revenue loads on the return trip. Therefore, present rate structures encourage the location of slaughtering plants in larger towns where a relatively larger amount of return haul traffic is is available.[5]

Minerals and fuels are major users of rural transportation. Minerals, fuels, and materials made from minerals, petroleum, and coal account for nearly 80 percent of all domestic waterborne commerce, almost 60 percent of all domestic rail shipments, and 100 percent of all domestic pipeline movements.[6] The costs of transportation to the ultimate point of use are considered significant because most minerals have a relatively low value for their weight or size compared with manufactured or more processed commodities, and some may be transported several times as they advance through various stages of processing.

In 1977, 71.5 million short tons of fertilizer, so important to agriculture, were transported.[7] Increased agricultural productivity has resulted, to a significant extent, from the intensive application of the three major fertilizer ingredients—nitrogen, phosphorus, and potash—along with many other trace elements.

The problem of moving fertilizer from phosphate mines in Florida and South Carolina, and from potash mines in Canada, to the vast agricultural production areas of the Midwest and Great Plains is compounded by the brief duration of the "fertilizer season," which lasts about 3 weeks. Such seasonal demand, or peakloading problems, on the transportation system is not without cost effects, not only upon the movement of fertilizer, but also on other goods competing for shipment.

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[5] Ibid., p. 19.

[6] U.S. Department of Commerce. "Statistical Abstract on the United States, 1977." Washington, U.S. Government Printing Office, 1977. P. 650. U.S. Department of the Army, Corps of Engineers. "Waterborne Commerce of the United States, Calendar Year 1976." Pt. 5 "National Summaries." Washington [1977]. Pp. 93–95.

[7] U.S. Secretary of the Interior. "Mining and Minerals Policy, 1978." Annual report under the Mining and Minerals Policy Act of 1970. Washington, U.S. Government Printing Office, 1978. Pp. 49–53.

Coal has been quite sensitive to transport costs and services. The final determinant of the extent of the market area for coal very often has been transportation cost and service. For the coal industry to compete effectively with oil residuals and nuclear energy for the electric utility industry market, transportation innovations and efficiency improvements have been important.[8]

MAJOR ISSUES BY MODE OF TRANSPORT

Rail service.—The railroad industry has for many years complained of excess track and other facilities, especially seldom-used rail branch lines. Moreover, technological trends have accelerated the obsolescence of little-used track and facilities. Rural branch rail line roadbed and track cannot support newer, heavyweight freight cars. The cost per mile of improving a typical branch line is often substantial, and future maintenance costs must be added to the significant capital improvement costs. Additionally, to take advantage of multiple-car rates, shippers would need to invest in more rail sidings and improved receiving and loading facilities, in order to accommodate the increased numbers of larger railcars.

Railroads continue to lose money when abandonments are delayed, since in effect the railroads are in such cases subsidizing shippers and communities. But when rail abandonment occurs, shippers and communities that depend heavily on rail service may incur substantial financial losses and other dislocations. Abandonment of rail service forces operational changes upon established procedures and transport operations, sometimes to the detriment of rural communities. If profits are marginal to begin with, establishments that lose rail service may discontinue operations or relocate, with attendant economic and social disruptions. If there is substantial investment in fixed plant and facilities, a firm must resort to alternative—and usually more costly—modes of transportation, most often motor carriers. Increased truck traffic in turn places greater stress and loadings on rural highways and bridges.

Thus the consequences of rail branch line abandonment extend far beyond the railroad company and the particular shippers involved. The use of operational efficiency criteria in abandonment decisions, which view the problem only from the perspective of railroad management, may be seriously deficient. Effects beyond the operational efficiency of the railroads are sometimes significant. Individuals living in rural communities may lose jobs and suffer declining property values and the communities could experience reduced prospects for further economic development. An important result of abandoned rail service is often the loss of competitive transportation flexibility which results in increased costs to the shippers. Some commodities are regulated when transported by rail but not when transported by truck or barge, and rail rates on these commodities usually are relatively steady compared with truck and barge rate fluctuations on these same commodities.

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[8] Breslin, J. J. and R. J. Anderson. "A Battelle Energy Program Report: Observations on the Surface Mining of Coal." Memorial Institute, Columbus, Ohio, Oct. 18, 1974. Pp. 79–80.

The Railroad Revitalization and Regulatory Reform Act of 1976, the "4R Act" (Public Law 94-210, 90 Stat. 31, enacted Feb. 5, 1976) authorized the ICC to exempt from rail regulation those commodities which the ICC determined could be deregulated without undue adverse effects. To date, agricultural commodities have not been exempted from rail regulation by the ICC. Another provision of the 4R Act allowed railroads to raise and lower rates without recourse by the ICC so long as the railroad did not have market dominance over that traffic. Few rates were filed under this provision of the 4R Act and railroads claimed that the reason was the stringent definition of of market dominance set by the ICC. This rate provision expired in February 1978. Historically, evidence shows that access to rail service can be advantageous to shippers in terms of securing rate reductions from other modes, whereas loss of rail service means the loss of this competitive advantage, further increasing transportation costs to the shipper.

The 4R Act provides Federal assistance to communities for the continuation of unviable rail service anywhere in the United States. The Federal share is 80 percent of all matching funds between July 1, 1978, and June 30, 1979, and 70 percent for the period from July 1, 1979, to June 30, 1981. After June 30, 1981, the provision of rail service on lines that railroads are authorized by the ICC to abandon will be wholly a non-Federal matter. Approximately 7,000 miles of low-traffic rail lines in the northeastern and midwestern part of the United States, and not included in the final system plan (FSP), were made eligible for abandonment or financial aid under the 4R Act, and currently about 3,000 of those 7,000 miles are being operated under the rail service continuation provisions of the 4R Act. Another 17,000 miles throughout the United States were reported as subject to abandonment applications before the ICC, or under study by the railroads for possible future abandonment applications before the ICC.

Rural passenger transportation services.—Public passenger transportation services are declining or nonexistent in many rural areas, despite the need for such service, especially by the young, elderly, poor, and disabled. Although the services are important to many rural residents, the revenues which are generated usually are too low to support public transportation services in rural areas without financial assistance from government. The lack of transportation for the young, elderly, and disabled likely will not be significantly eased through general rural development, but greater access to private transportation by the poor could come through rising incomes. Higher incomes and lower levels of unemployment in rural areas might provide sufficient tax revenues to facilitate public financial support of rural public transportation. Federal assistance for rural public transportation is of rather recent origin and might increase over the next few years as a result of greater concern for meeting the transportation needs of the rural young, disabled, elderly, and poor. However, the amount of Federal assistance to rural public transportation is very low when compared

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with Federal assistance to road building and other Federal aids to transportation.

Quality of rural roads and bridges.—The United States in 1976 had 3.9 million miles of roads and streets, more than any other country in the world. Of the total, the rural system consisted of 3.2 million miles. Some 2.3 million of this rural mileage was under local government control. State roads accounted for 0.7 million miles, those under Federal control amounted to 0.2 million miles.

The main question about adequacy of rural roads concern the quality of existing roads rather than the need for extension of mileage. The quality of roads in rural areas is highly variable within local areas. Whereas most regions of the country are now linked by the nearly completed Interstate System, service to some farm and rural residences still is provided by unpaved local roads.

By 1976, about 80 percent of rural roads were surfaced, compared to 72 percent in 1966. During the period, total unsurfaced mileage declined by nearly one-fifth. Thus, to the extent that surfaced roads represent an improvement in road quality, the rural road system was considerably better in 1976 than a decade earlier.

The load-bearing ability of roads is an indicator of the ability to meet heavy-load transport demands. Of the 2.5 million miles of surfaced rural roads in 1976, only about 0.6 million were rated as having a high load-bearing capacity, but this was an increase of nearly 25 percent over the 1966 figure.[9] Another consideration in appraising road capacity, is changes in the size of loads carried. The average load on main rural roads (which include over 600,000 miles of road that are of primary importance to the State highway system) more than doubled between 1960 and 1975, and the frequency of axle loads of 22,000 pounds or more increased by 90 percent. The frequency of axle loads of 18,000 pounds or more increased by almost 230 percent during the same period.[10] This increased loading means that demands on the road system have increased—a situation that could lead to increased surface and structural deterioration unless load-bearing ability and reconstruction keep pace.

State governments, under guidelines established by the U.S. Department of Transportation (DOT), conducted evaluations of the rural road network by functional categories: Arterial, collector, and local roads. Local roads, the most extensive network in rural areas, provide access to adjacent land and allow short-distance travel. Of the approximately 2 million miles of such roads, about half were rated "intolerable" by the States using DOT guidelines, which included traffic, surface width and type, shoulder width, safe driving speed, and pavement condition. Deficiencies were especially severe in the Appalachian and Delta States. The Corn Belt had a slightly lower percentage of deficiencies than the Nation as a whole, but deficient segments accounted for nearly half of that region's local roads.

Although many local roads were classed as intolerable, other functional classes appear to have been even worse, when account is taken of traffic levels. Thus, local roads may impede the marketing of agricultural, lumber, and mineral products to a lesser degree than do the collector and arterial systems.

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[9] U.S. Department of Transportation. "Highway Statistics, 1976 and Summary to 1975."
[10] U.S. Department of Transportation. "Highway Statistics, 1975 and 1960."

The number of deficient bridges on rural roads may create a serious restriction to the continuing flow of traffic along such routes. In 1970, the Federal Highway Administration estimated that there are approximately 200,000 bridges on arterial and collector roads which were expected to remain rural through 1990.[11] Over two-thirds of these are on rural collectors. The DOT compiles data submitted by the States on bridges which either are on or cross over a Federal-aid highway. These structuresc have been inventoried and classified by the States in accordance with the national bridge inspection standards.

In addition, a special bridge replacement program is being administered by DOT to replace structurally deficient and functionally obsolete bridges. These bridges have been judged unsafe because of structural deficiencies, physical deterioration, or fuctional obsolescence. As of December 1977, 33,500 bridges on the Federal-aid system were identified as structurally deficient or functionally obsolete under the standards of this program. The Department of Transportation reported, in 1977, that there were 234,016 bridges on the Federal-aid system that had been inventoried and classified, of which 14 percent are structurally deficient or functionally obsolete.[12] From the initiation of the program in fiscal 1972 through December 31, 1977, 1,648 new bridges have been approved and funded for design or construction. Approximately 531 of the 1,648 bridges are open to traffic and others are in various stages of development. It is estimated that there are 72,000 structurally deficient or functionally obsolete bridges off the Federal-aid highway system. The estimated replacement cost of these bridges is $12.5 billion, and $12.6 billion for bridges on the Federal-aid system, for a total of $25.1 billion.

TRANSPORTATION AND RURAL DEVELOPMENT

Rural development experience indicates that although transportation investment and service is a necessary condition for development to occur and continue, it alone does not provide a sufficient stimulus to cause development. The quality and cost of transport services is but one of many business location determinants. Every enterprise and individual must consider many cost and convenience elements in making location decisions.

Nonetheless, transportation investment has played an integral part in the settlement and development of the continental United States. Transport services tie open spaces and small towns into the system of larger cities and integrate them into the national economy and culture. Adequate transportation to and from other places within rural areas and between rural areas and the major cities is an important determinant of the quality of rural as well as urban life. Today, the movement of materials, goods, and people are extremely critical to the functioning of complex national production, distribution, and consumption systems.

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[11] U.S. Department of Transportation, Federal Highway Administration, Office of Highway Planning, 1970.

[12] U.S. Department of Transportation, Federal Highway Administration, Office of Engineering, Bridge Division, Special Bridge Replacement Program, Seventh Annual Report to Congress, Apr. 1, 1978.

Improved transportation services, agricultural practices and changed plant location determinants, as well as changing lifestyle preferences, have resulted in major changes in how population and economic activity are distributed throughout the Nation. These changes in the distribution of population, industry, and commerce could not have taken place without the increased availability of adequate and reasonably priced transportation. In turn, the increased availability of low-cost transportation was influenced strongly by a steadily increasing level of governmental support through direct and indirect subsidies. Historically, many Federal transportation policies were initiated to serve interests with rural roots. As demographic patterns and representational strengths have evolved from rural to nonmetropolitan dominance, however, so too has concern with transportation policies changed. With a prospective resurgence of rural economic vitality and population growth, Federal transportation policy and programs may need to be revised.

Both historically and currently, regionalized and localized patterns of interest concerning transportation problems and issues have appeared. For example, grain producers who are concentrated primarily in the Midwest and Great Plains regions have different transportation priority concerns from either southeastern and northwestern timber producers or Appalachian mining interests. Reflecting such differentiation, some issues such as seasonal service priorities may best be resolved on a regionalized decisionmaking basis; however, other issues such as those pertaining to rates and tariffs may need to be resolved nationally to serve national equity purposes or developmental needs.

It is the diversity of rural America that may make it difficult, if not almost impossible, to administer equitably an expression of national transportation policy through completely uniform administrative guidelines. The diversity of rural interests may inhibit identification of specific, workable programs below the level of broad generalizations calling for more Federal assistance of all kinds.

Presently, food is being shipped to markets, goods are being shipped to rural areas, and (most) rural residents are getting from one place to another—perhaps not too conveniently, nor too efficiently, nor as inexpensively as possible, but it is evidence that the present facilities and systems are functioning. On the other hand, disaggregating the national interest to the local level in widely different rural settings has been easier to accomplish through a political process than through an analytical process.

One approach to solving the problem of disaggregation has been in the design of the Appalachian Highway System. In that case, transportation economists, highway engineers, and the political processes of 13 States, worked together with Federal agencies to formulate a practical application of national policies which also met local needs.

The Appalachian approach involved a two-step process for transforming national policy to fit the local setting. One step centered around the Appalachian Regional Commission. The commission served as a decisionmaking point for relating differing State situations to the national interest and vice versa. The other step involved utilizing multicounty local development district organizations to relate the local interest to the State level. The decisionmaking system involved both the multicounty level and the multi-State level. A national process was thus created for not only making transportation policy decisions, but also for relating those decisions to other developmental needs of the area and the Nation.

Most proposals dealing with rural transportation problems seem to rely on the traditional approaches of revising regulatory procedures or criteria, strengthening or creating new categorical aid programs, or establishing new agencies to deal with the problem. Few of the approaches seem to recognize the difficulty of dealing with regional differences, or of rearranging the decisionmaking process, such as did the ARC legislation. Another example of resolving the disaggregation problem was the Regional Rail Reorganization Act of 1973 (Public Law 93-236, 87 Stat. 985, enacted Jan. 2, 1974). The act recognized the regional nature of the problems of restructuring the Northeast and Midwest railroads, and provided for administrative innovations to incorporate widespread public participation, such as the creation of the Rail Services Planning Office (RSPO) in the ICC. The RSPO conducted a series of public hearings on the preliminary system plan (PSP) developed by USRA. The information gained from these hearings, which were held at various locations throughout the 17-State area now being served by the Consolidated Rail Corporation (Conrail) was compiled and published, along with RSPO's recommendations for modifying the PSP based upon the hearings and upon RSPO's own analysis of the PSP.

Given the interdependence of metropolitan and nonmetropolitan areas, the importance of transportation to the economic and social health of each, and the importance of the transportation system in linking each to the other, there can be little question of the need for consistent, comprehensive, and systematic policies toward transportation. That such policies should address the question of equity in terms of cost and level of service seems evident.

Because of the differences in kind and degree of transportation needs within the rural United States, as well as between rural areas and metropolitan areas, however, traditional attempts to formulate national implementing legislation in extensive detail in efforts to insure equitable application of assistance in every separate case and instance, may not be the best future approach. On the other hand, there is legislative precedent in the Appalachian Regional Development Act and the Regional Rail Reorganization Act of 1973 for an approach that enables the establishment of a broad national policy while providing for its implementation through guidelines developed and administered on a regional and multi-State basis, and alternatively, for taking the input of local and regional areas into account through a formalized process.

FEDERALLY ASSISTED HOUSING IN RURAL AMERICA[1]

INTRODUCTION

The National Housing Act of 1949 called for "the realization as soon as feasible of the goal of a decent home and suitable living environment for every American family." The Federal Government has sought to reach this goal by providing incentives to private industry and consumers to construct and purchase homes and by providing subsidized housing to persons with low incomes. Federal incentives to the private sector include tax deductions for mortgage interest and property tax payments, and Federal guarantees and insurance of mortgage loans. Federally assisted housing programs provide for the construction of homes for low- and moderate-income persons and subsidies for low-income persons living in private rental housing.

This paper will be concerned with assisted housing in rural America. Topics to be discussed include: Rural housing conditions and needs; federally assisted rural housing programs; some of the successes and shortcomings of these programs; and the future role of the Farmers Home Administration (FmHA) in serving the housing needs of rural America.

CONDITIONS AND NEEDS

Substandard housing continues to be a major problem in rural America. Although housing quality standards have improved considerably over the years, there remain more than 1 million families in nonmetropolitan areas who are ill-housed.

Census Bureau data can give an idea of the magnitude of substandard housing in nonmetro areas. In 1976 about 1.3 million households lived in dwellings that lacked complete plumbing. These households accounted for 5.4 percent of the 23.6 million occupied nonmetro units. In earlier years the problem was worse, with 11.4 percent of all occupied units lacking complete plumbing in 1970, and 28 percent in

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[1] By Robert Eprile, economic analyst, Economics Division, Congressional Research Service, The Library of Congress. Portions of this paper were adapted from an earlier paper on the same subject by Richard Wellons, formerly associated with the Congressional Research Service.

1960. However, even in 1976, nonmetro areas continued to have a disproportionate share of units without all plumbing. The problem was less severe inside metropolitan areas, where only 1.3 percent of all occupied metro units lacked complete plumbing.

When another measure of bad housing is used, the number of nonmetro units considered to be substandard (without complete plumbing) stood at 2.9 million in 1970, or 15 percent of the total number of dwellings. For metro areas the rate was 5.5 percent. If substandard units are considered those without all plumbing and those that are overcrowded, then an even larger number of substandard units were occupied by households in nonmetro areas in 1970, over 3.9 million.

The range of these figures suggests that measuring the amount of bad housing is a problem in itself. Most figures are estimates rather than exact numbers. Estimates vary depending on which definitions of "substandard" are used. One measure of housing quality, which probably yields the most statistically meaningful data, is whether a unit lacks complete plumbing. Other criteria are more difficult to measure. "Dilapidation," although used in past decennial censuses, is now considered an obsolete indicator because census enumerators have found it difficult to measure precisely the degree of dilapidation of a unit. At what stage of disrepair a unit should be considered substandard is open to question. Whether a family lives in "overcrowded" conditions or pays "excessive" housing costs are also debatable measures of housing need. Additionally, these conditions may be as much an income problem as a housing problem. Another measure of housing need for which there are insufficient data is a family's access to private mortgage credit, a particular problem in rural areas. Whatever criteria are used, substandard rural housing is not easily quantified.

One new source of information on housing conditions that will provide a valuable ongoing data base for future analysis is the Census Bureau's annual housing survey, first conducted in 1973 and now available for 1976. These surveys give a more accurate indication of the physical condition of the housing stock than do earlier decennial censuses. Instead of reporting the rather imprecise measure of "dilapidation," the new surveys measure bad housing characteristics in greater detail and on an annual basis. Among the specific conditions reported are breakdowns in water, sewerage, and heating equipment; interior walls and ceilings with open cracks or holes, peeling paint, or broken plaster; exposed electric wiring; incomplete bathroom and kitchen facilities, and bedrooms that are crowded or lacking in privacy.

A comparison of the figures shows that in all these characteristics but one (breakdowns in heating equipment), conditions were found to be worse for housing located in nonmetro areas. (See table 1.) Although nonmetro conditions have improved in recent years, in most categories the proportion of bad nonmetro units still ranges from two to four times as high as the proportion for metro areas and for the Nation as a whole. Present and future comprehensive study and analysis of the surveys should indicate the trends and highlight the problem areas in housing conditions throughout the Nation. It can be hoped that the results will prove valuable in gaging housing quality more accurately so that Federal policies can more closely reflect actual needs.

TABLE 1.—ANNUAL HOUSING SURVEY—SELECTED INDICATORS OF HOUSING QUALITY, 1976

[Number of households in thousands; percentages in parenthesis]

	United States	Inside SMSA's	Outside SMSA's
Number of occupied housing units	74, 005	50, 452	23, 553
Owner	47, 904	30, 895	17, 009
Renter	26, 101	19, 557	6, 544
Units without complete kitchen facilities (or share facilities with another household):			
Owner occupied	399 (0. 8)	99 (0. 3)	300 (1. 8)
Renter occupied	948 (3. 6)	492 (1. 6)	456 (7. 0)
Units without complete bathroom (or share another with household):			
Owner occupied	853 (1. 8)	249 (0. 8)	604 (3. 5)
Renter occupied	1, 366 (5. 2)	625 (3. 2)	741 (11. 3)
Percentage of households reporting breakdowns in:			
Water supply	(2. 1)	(1. 7)	(2. 9)
Sewerage disposal	(0. 9)	(0. 9)	(1. 0)
Flush toilet	(1. 4)	(1. 3)	(1. 5)
Heating equipment	(5. 6)	(5. 9)	(4. 8)
Interior ceilings and walls in disrepair:			
Owner occupied:			
With open cracks or holes	1, 264 (2. 6)	777 (2. 5)	487 (2. 9)
With broken plaster or peeling paint	1, 899 (3. 9)	1, 208 (3. 9)	670 (3. 9)
Renter occupied:			
With open cracks or holes	2, 681 (10. 3)	1, 930 (9. 9)	751 (11. 5)
With broken plaster or peeling paint	3, 541 (13. 6)	2, 623 (13. 4)	918 (14. 0)
Some or all electric wiring exposed:			
Owner occupied	492 (1. 0)	188 (0. 6)	304 (1. 8)
Renter occupied	639 (2. 4)	345 (1. 8)	294 (4. 5)
Bedrooms used by 3 persons or more (in households with at least 3 persons):			
Owner occupied	1, 533 (5. 8)	895 (5. 1)	638 (7. 2)
Renter occupied	1, 945 (20. 2)	1, 341 (19. 5)	604 (22. 0)
1 or more bedrooms lacking privacy (in households with 2 or more bedrooms):			
Owner occupied	3, 510 (7. 6)	1, 710 (5. 8)	1, 800 (11. 0)
Renter occupied	2, 167 (13. 2)	1, 226 (10. 5)	941 (19. 7)

Source: Annual Housing Survey: 1976, Part B, Indicators of Housing and Neighborhood Quality.

THE FEDERAL ROLE

Federal programs have attempted to bring adequate housing to rural America for almost 30 years. The first major programs for homeownership and housing repair loans specifically in rural areas were authorized by the Housing Act of 1949 as a part of the national housing program. These housing loans were originally limited to farmers. The authority to make them was granted to the Farmers Home Administration (FmHA) of the Department of Agriculture, an agency created in 1946 to consolidate depression-era farmer relief programs and make loans to low income farmers who could not obtain credit elsewhere. At the time, FmHA was the logical agency to administer rural housing programs because of its established network of county offices, experienced local personnel, and program delivery systems throughout rural and farming areas of the country.

The Housing Act of 1961 greatly expanded FmHA's responsibility for rural housing by authorizing direct loans to eligible nonfarm rural residents. Congress has since added many other programs to FmHA, including: farm labor housing loans (1961); rural rental and cooperative housing (1962); farm labor housing grants (1964); self-help housing loans and technical assistance (1968); rural housing site loans (1969); a rural rental assistance payments program (1974); and a deep subsidy homeownership program (1978). Most of the great upsurge in FmHA housing programs has occurred during the past 40 years, a period of increasing attention and legislation directed toward rural development.

In 1965 the population limit on nonmetropolitan towns that could be served by FmHA's housing programs was set at 2,500. It has been raised several times since, and by 1974 encompassed places of up to 10,000 persons along with designated credit-short areas between 10,000 and 20,000 population. In 1965 FmHA housing loan volume amounted to $133 million; in fiscal 1978 over $3.7 billion was loaned to help finance 122,581 units. Homeownership loans outstanding as of midyear 1978 totaled about $13 billion. Housing programs of FmHA have now become larger than its two other major operations, farmer programs and community development programs. Once a credit agency for small family farms suffering the Depression, the Farmers Home Administration has now evolved into the primary housing agency for nonmetropolitan America.

Farmers Home serves the Nation's rural communities through a variety of housing programs. Its major housing programs are described below. Also discussed are some of the weaknesses and some of the achievements of these programs.

RURAL HOUSING PROGRAMS OF THE FARMERS HOME ADMINISTRATION

Section 502. Homeownership program

Nature of program.—Under the section 502 program, FmHA provides loans and guarantees to families in rural areas, who would otherwise be unable to obtain mortgage credit on reasonable terms, to buy, build, or repair a single-family home. The program serves rural residents in the following ways: (1) subsidized loans, called "interest credit" loans, are provided to low-income families (maximum adjusted annual income of $11,200 in the 48 contiguous States, $13,700 in Hawaii and Guam, and $16,800 in Alaska); (2) loans are provided to moderate-income families (maximum adjusted annual income of $15,600 in the 48 contiguous States, $18,500 in Hawaii and Guam, and $23,000 in Alaska); and (3) loan guarantees are provided to above moderate income families with incomes of up to $20,000 in the 48 contiguous States. (The loan guarantee program will be further discussed in the section on "neglected programs.")

FmHA also encourages the building of new homes in rural areas by making conditional commitments to homebuilders. These commitments state that if homes are built according to FmHA standards, the agency will make mortgage loans (provided that funds are available) to qualified homebuyers.

Program requirements.—To obtain a section 502 loan, a family must: (1) Be without decent, safe, and sanitary housing; (2) be unable to obtain a loan from a private lender at reasonable terms; and (3) have sufficient income to repay the loan.

There is no mortgage limit under the section 502 program, but FmHA requires that housing be modest in design and cost. Homes financed under this program average about 1,100 square feet.

The loan may be as large as the "normal value of the security," thus eliminating the need for a downpayment.

If the financial position of a family receiving an interest credit or direct loan improves so that the loan can be refinanced through a commercial lender, the loan contract provides that this shall be done.

Type of assistance.—FmHA provides direct loans to low- and moderate-income borrowers. The maximum repayment period is 33 years. Low-income borrowers may also receive an interest subsidy, called an interest credit, which reduces the actual interest rate paid by the borrower to as low as 1 percent. All section 502 loans may, however, be regarded as assisted housing to the extent that the basic interest rate charged by FmHA is generally lower than the market interest rate for similar loans. FmHA is able to charge a lower rate (currently 8½ percent) because its borrowing costs, as a Federal agency, are lower than the cost of funds to private lenders.

FmHA mortgage loans are technically "insured loans." From the borrower's standpoint the loans function as direct loans; his only contact is with FmHA, which originates and services the loan. FmHA makes the loans with funds from a revolving account known as the Rural Housing Insurance Fund. These mortgage loans are then pooled to form the equivalent of mortgage-backed securities called certificates of beneficial interest, which are insured by FmHA and sold to the Federal financing bank. The proceeds from the sale flow back into the Rural Housing Insurance Fund and are used to make new loans. FmHA depends on congressional appropriations to make up net losses from the fund, which can arise either from default on the mortgage or through payment of interest on the certificates which is higher than the interest payments received on interest credit loans.

Activity under program:

AMOUNTS OBLIGATED AND NUMBER OF UNITS FINANCED: FISCAL 1970 TO 1978

	Fiscal year 1970	Fiscal year 1971	Fiscal year 1972	Fiscal year 1973	Fiscal year 1974	Fiscal year 1975
Total amount obligated (thousands)	$756, 532	$1, 362, 276	$1, 561, 221	$1, 753, 689	$1, 589, 883	$1, 926, 643
Amounts obligated for interest credit loans	NA	NA	NA	$853, 693	$705, 438	$1, 185, 601
Total number of units (initial loans)	65, 310	103, 824	105, 049	105, 847	86, 543	94, 589
Number of units receiving interest credit loans	NA	NA	NA	51, 853	38, 166	58, 445

	Fiscal year 1976	Transition quarter	Fiscal year 1977	Fiscal year 1978
Total amount obligated (thousands)	$2, 286, 635	$613, 290	$2, 568, 741	$2, 691, 301
Amount obligated for interest credit loans	$1, 341, 772	$356, 508	$1, 485, 676	$1, 720, 000
Total number of units	107, 514	23, 372	118, 572	112, 559
Number of units receiving interest credit loans	60, 841	16, 939	65, 629	68, 818

Some weaknesses.—The program does not adequately serve the lowest income families. The average annual income of families receiving 502 loans in fiscal 1977 was $9,890. Only 13 percent of all borrowers had annual incomes of less than $7,000.

Delinquencies are high. Data for 1975 to 1977 show that between 8 and 9 percent of 502 borrowers are more than 6 months delinquent on at least part of their housing payments.

Foreclosures appear to be increasing. Between 1970 and 1976 the rate of foreclosure on section 502 loans increased from 0.04 percent to 0.45 percent. These figures, especially the earlier figure, may be low as Farmers Home tries to avoid having to foreclose its loans.

Subsidies do not appear consistently in the budget. When FmHA makes a section 502 interest credit loan, the agency is committing itself to subsidize the borrower for a period of up to 33 years. The potential cost of this long-term commitment is not, however, reflected in the budget. FmHA's accounting procedures are such that the agency does not calculate the run-out costs (cost of paying the subsidy for 5, 10, or 33 years) of its interest credit loans.

Some achievements.—The program has facilitated homeownership for some rural families. It provides mortgage loans to families in rural areas where private credit is generally not available. Approximately 1 million rural families have received section 502 loans. Over two-thirds of these loans were made in the last 7 years. Partly as a result of this assistance, homeownership in nonmetropolitan areas has increased from 60 percent in 1950 to 72 percent in 1975.

Housing standards have been raised. By requiring that homes financed with section 502 loans meet FmHA standards, the program has contributed to the improvement in rural housing conditions.

Section 515. Rural rental program

Nature of program.—Section 515 loans are available to nonprofit and profit-oriented sponsors to build, purchase or repair multifamily rental or cooperative housing in rural areas for occupancy by low- and moderate-income families and persons aged 62 or over.

Eligibility requirements.—Rural rental housing loans can be made to individuals, consumer cooperatives, State or local public agencies, limited partnerships and profit and nonprofit corporations. All sponsors must be able to meet a "credit elsewhere" test, that is, the sponsor must be unable to obtain credit from other sources on conditions and terms that would enable them to rent units to eligible families.

There is no maximum mortgage amount, but FmHA requires that rental housing be modest in size, design, and cost. Loans to nonprofit organizations and State or local public agencies can be up to 100 percent of the appraised value or development cost, whichever is less. Loans to all other applicants are limited to 95 percent of the appraised value or development cost. Loans to purchase buildings less than 1-year-old are limited to 80 percent of appraised value. Profit-oriented sponsors are required to pay the regular FmHA multifamily housing loan interest rate. Nonprofit and limited profit sponsors are eligible for subsidized "interest credit" loans.

Low- and moderate-income families and persons aged 62 or over are eligible for section 515 rental housing. FmHA defines "low income" as a maximum adjusted annual income of $11,200 in the 48 contiguous States, $13,700 in Hawaii and Guam, and $16,800 in Alaska. "Moderate income" is a maximum of $15,600 in the 48 contiguous States, $18,500 in Hawaii and Guam and $23,000 in Alaska. Low-income tenants may also receive rental assistance payments under FmHA's rural rental assistance program or HUD's section 8 leased housing assistance program. Payments made under these two programs limit the amount of rent paid by a low-income person or family to a maximum of 25 percent of adjusted income.

Type of assistance.—Direct loans may be made to sponsors of multifamily rental and cooperative housing for low- and moderate-income persons and the elderly. Maximum repayment period is 50 years for projects designed for the elderly and 40 years for all other projects. Subsidized "interest credit" loans, which reduce the actual interest rate paid to as low as 1 percent, are available to nonprofit and limited profit sponsors.

Activity under program:

AMOUNTS OBLIGATED AND NUMBER OF UNITS FINANCED: FISCAL 1970 TO 1978

	Fiscal year 1970	Fiscal year 1971	Fiscal year 1972	Fiscal year 1973	Fiscal year 1974
Amount obligated (thousands)	$28,441	$26,789	$43,118	$105,063	$173,314
Number of units (initial loans)	4,033	2,624	3,858	8,600	12,590
	Fiscal year 1975	Fiscal year 1976	Transition quarter	Fiscal year 1977	Fiscal year 1978
Amount obligated	$292,355	$231,202	$268,781	$544,954	$675,945
Number of units	20,933	[1] 33,175		30,096	NA

[1] Number of units for fiscal year 1976 and transition quarter.

Some weaknesses.—FmHA has not collected data on the incomes of persons living in section 515 projects. It appears, however, that current construction costs make such apartments too expensive for lower income families who do not receive some form of rental assistance. FmHA has only recently begun to provide rental assistance through HUD's section 8 leased housing program and its own rural rental assistance program.

Volume of activity has been relatively low. The program has not made a large contribution to rental housing requirements of rural lower income families.

Some achievements.—FmHA's rental housing program contributes to rural development by providing low income persons, the elderly, and handicapped with an alternative to single-family housing.

Section 504. Low income housing repair loan and grant program

Nature of program.—Loans and grants are provided to low income rural homeowners for housing repairs.

Eligibility requirements.—Loan applicants must have insufficient income to qualify for a section 502 loan but enough income to repay the section 504 loan. Grants are made only to low income elderly homeowners, aged 62 or older.

Type of assistance.—"Repair loans and grants" are provided to remove health and safety hazards such as a leaking roof or unsanitary waste disposal system. Loans are for 20 years at a 1 percent interest rate. The maximum loan is $5,000. Low income elderly homeowners may receive a grant or combination of loan and grant of up to $5,000.

"Home improvement loans" may be used for additional improvements such as adding a room or remodeling the kitchen. These loans are for a term of up to 25 years with a maximum of $7,000. The interest rate is between 1 and 3 percent based on the homeowner's adjusted family income.

Activity under program:

AMOUNT OBLIGATED AND NUMBER OF UNITS FINANCED: FISCAL 1970 TO 1978

	Fiscal year 1970	Fiscal year 1971	Fiscal year 1972	Fiscal year 1973	Fiscal year 1974
Sec. 504—Home repair loans:					
Amount obligated (thousands)	$5,245	$5,492	$5,341	$4,515	$4,382
Number of units (initial loans)	4,380	4,364	3,219	2,595	2,185
	Fiscal year 1975	Fiscal year 1976	Transition quarter	Fiscal year 1977	Fiscal year 1978
Sec. 504—Home repair loans:					
Amount obligated (thousands)	$4,809	$5,937	$2,352	$7,886	$11,942
Number of units (initial loans)	2,098	2,269	1,530	3,505	4,823
Sec. 504—Home repair grants:					
Amount obligated (thousands)				$5,000	$9,000
Number of units (initial grants)				1,989	3,609

Weaknesses.—The number of section 504 loans made by FmHA has declined since the late 1960's. FmHA has attributed this decline to manpower constraints—the program is one for which there is a high ratio of staff time to dollar amounts loaned. FmHA's manpower problems appear to be so severe that in a number of States FmHA has allowed "gratuitous personnel"—persons whose salary is paid by another Federal or State agency—to be placed in its offices to work with the program.

Section 504 grants were not funded until 1977. The demand for the initial $5 million in grants in fiscal 1978 was so intense that a supplemental request for an additional $4 million was made, and appropriated, early in the year.

Some achievements.—The program has the potential to help improve the quality of existing rural housing units owned by persons with low incomes, especially those owned by the elderly.

FmHA sections 514 and 516. Farm labor housing loan and grant programs

Nature of program.—Loans and grants are available for the construction of rental housing for farm laborers.

Eligibility requirements.—Housing financed under this program must be operated on a nonprofit basis. Applicants must be unable to obtain funds from private lenders on terms and conditions the borrower can reasonably be expected to meet.

Type of assistance.—Loans are available to farmowners, State political subdivisions and nonprofit organizations at a 1 percent interest rate for a term of up to 33 years. The 1 percent interest rate is designed to assure that rents will be low enough to be within the reach of farmworkers. In addition to the loans, grants which may cover up to 90 percent of development costs are available to State political subdivisions and nonprofit organizations.

Activity under program:

AMOUNTS OBLIGATED AND NUMBER OF UNITS FINANCED: FISCAL 1970 TO 1978

	Fiscal year 1970	Fiscal year 1971	Fiscal year 1972	Fiscal year 1973	Fiscal year 1974
Sec. 514/416—Farm labor housing:					
Amount obligated (thousands)	$3,683	$1,211	$9,[illegible]76	$11,960	$20,081
Number of units (initial loans)	352	138	6[illegible]8	856	----------

	Fiscal year 1975	1976 and transition quarter	Fiscal year 1977	Fiscal year 1978
Sec. 514/516—Farm labor housing:				
Amount obligated (thousands)	$13,065	$10,116	$12,586	$17,748
Number of units (initial loans)	1,097	1,118	1,211	NA

Some achievements.—Migrant and seasonal farmworkers have unique housing problems as a result of the seasonal nature of their work. A potential strength of the farm labor housing program is that it was specifically authorized to meet the housing needs of domestic farmworkers. Without such a program it is likely that farmworkers' housing would be completely neglected by many local jurisdictions. Under the rules for HUD's local housing assistance plans, for instance, migrant farmworkers may not be counted among those in need of assisted housing.

Weaknesses.—The program's major weaknesses appear to stem from a lack of money—FmHA did not request funding for the program in some years—and from the short period of time the housing has been in use in many areas. The most successful projects built under this program tend to be in States such as California, Florida, and Texas where migrant farmworkers maintain their permanent homes. The program tends to be less successful in those States where migrant farmworkers live and work for only 1 or 2 months of the year. An additional problem is that retired farmworkers are not eligible for sections 514 and 516 housing.

DELAYED PROGRAMS

The Farmers Home Administration delayed implementing two housing programs authorized by Congress for a number of years. The two programs are the section 502 guaranteed loan program and a rural rent supplement program. The guaranteed loan program was authorized by the Rural Development Act of 1972 but not implemented until January 1, 1977. Even then, FmHA made only a half-hearted effort at implementing the program. In fiscal 1977, only 69 loans, valued at about $1.5 million, were guaranteed. The program was also limited to moderate-income families—families with a maximum adjusted annual income of $15,600—and the maximum loan amount was $33,000. The interest rate for the guaranteed program was the same as the rate for the regular section 502 program.

Under the Housing and Community Development Act of 1977 (Public Law 95-128) a number of changes were made in the guaranteed loan program. Guaranteed loans were limited to above moderate-income families and the interest rate was to be negotiated between the borrower and lender. The conference report accompanying the act also proposed that FmHA establish an interim income ceiling of $20,000 in order to give the agency a chance to expand the program in an orderly manner. In fiscal 1978, however, Farmers Home did not use the program at all. For fiscal 1979, Farmers Home has apparently allocated $500 million for guaranteed loans. Whether or not these moneys will be used remains to be seen.

The rural rent supplement program has a somewhat similar history. The Housing and Community Development Act of 1974 stated that the Farmers Home Administration "may" implement a rural rent supplement program to be used in connection with its own section 515 rental housing program. FmHA, however, chose not to implement the program, preferring instead to use HUD's section 8 housing assistance program in tandem with its own section 515 rental program. The Housing and Community Development Act of 1977 made Congress' intentions in this area unambiguous by stating that FmHA "shall" implement a rural rent supplement program. Farmers Home started the program in late 1977 and in fiscal 1978 almost 18,000 units were assisted for a total of over $300 million. The joint FmHA section 515 and HUD section 8 program also continues in use.

INCOME GROUPS SERVED

In addition to making housing assistance available to more rural families, congressional actions to expand FmHA programs have had a further purpose, that of aiding more lower income families. Specific legislative actions taken over the past 10 years have attempted to ensure that lower income families receive priority in housing programs.

Since 1965 the population limit on towns served has been raised several times in order to reach families with great housing needs in all places up to 10,000 and in designated "credit-short" communities between 10,000 and 20,000 persons. In 1966 eligibility was expanded for elderly and young low-income families seeking homeownership and rental housing. In 1968 interest-credit loans were made available to reach families with lower incomes, as were programs for self-help homebuilding loans, technical assistance grants and farm labor loans and grants. Low income proportions for funds obligated were stipulated in appropriation acts, rural rent supplements were authorized, and rental housing programs were expanded. The intent of Congress that assistance to the low income be emphasized has also been expressed in various committee reports accompanying housing bills and appropriation acts and in hearings. The cumulative intent of these congressional actions has been to make it possible for more lower income families in more areas to benefit from FmHA housing programs.

Despite these actions, fewer and fewer of those assisted in recent years have been families below the poverty level. In the past 3 years, the proportion of families receiving section 502 loans with incomes under $6,000 has dropped from 31.1 percent in fiscal 1973 to 13.6 percent in 1975 and just 6.3 percent in 1977. At the same time, from 1973 to 1977, the median income of home loan recipients has risen at a faster rate than have median incomes generally. During these fiscal years the median income of all families assisted under section 502 rose from $7,169 to just over $10,000. This amounted to almost a 30-percent increase. Median incomes of all families in nonmetro areas have also risen of course, but not at as fast a rate, increasing by just under 25 percent between 1973–75.

These figures indicate that there has been an upward drift in the incomes of families receiving section 502 loans. More homeownership loans are being made to moderate-income families and proportionately fewer to lower income families. In addition, of those low-income families who are being aided, it appears that fewer interest credit loans are going to those at the bottom of the income scale who are most in need of assistance. The Farmers Home Administration has been unable to provide data on the median incomes, or breakdown by income class, of families receiving section 502 interest credit loans in fiscal 1976–77. Data for fiscal years 1973–75, however, indicate that there has been a substantial increase in the incomes of families receiving section 502 interest credit loans. In 1973 the median income of families receiving interest credit loans was about 57 percent of the general nonmetro median income. In 1974 it rose to 60 percent and in 1975 crept up again to an estimated 63 percent.

The rise in income of families receiving section 502 loans, both interest credit and noninterest credit, has occurred for a number of reasons. The increasing cost of housing is a major factor. The average amount of an initial section 502 loan (which roughly equals the cost of a unit) has risen from $10,276 in fiscal 1969 to $23,445 in fiscal 1977. There has been little significant increase in the quality and size of homes provided in recent years, since the increased loan amounts have roughly paralleled rising construction costs.

However, since the subsidy covers only a portion of interest costs on the loans, fewer low-income families can afford the more expensive loans and homes.

Administrative actions on the part of FmHA have also led to fewer of the poorest being assisted. Maximum eligible income levels for home loans have been increased three times since the beginning of 1975 and are now $11,200 for low income and $15,600 for moderate-income families in the continental United States. When eligible income levels are increased, more moderate-income families are allowed to compete with low-income applicants for a limited amount of funds. Since FmHA officials decide which applicants are accepted for loans, often deciding on the basis of repayment ability rather than need, those with higher income are more likely to be accepted. It is obviously in FmHA's own best interests to make loans involving the least risks, and it is easier for FmHA's limited staff to service the safer loans than the "problem" loans which often involve low-income recipients. By setting higher income eligibility limits for "low-income" loans, FmHA can still satisfy the congressional mandate that 60 percent of all obigations be made to low-income families, while making fewer "problem" loans to poverty-level families.

NEW PROGRAMS

In response to the limited ability of most incomes FmHA programs to serve rural families with incomes at or below the poverty level, Congress has established two new programs to assist persons with very low incomes. The programs are the rural rent assistance program, which was authorized in 1974 and is briefly discussed in the section on "neglected programs," and a new deep subsidy homeownership program authorized in the Housing and Community Development Amendments of 1978.

The rental assistance program covers the difference between 25 percent of the very low-income person's adjusted annual income and the FmHA approved basic rent for a rental unit. Rental assistance is available to very low-income persons living in units financed under FmHA's section 515 rental program or FmHA's farm labor housing programs.

The new deep subsidy homeownership program is designed to assist families who are too poor to afford a 1-percent section 502 loan and live in remote areas where FmHA rental housing is not available. The new program provides a subsidy covering the difference between 25 percent of the family's income and total housing costs, including insurance, taxes, maintenance, and utilities. To reduce the cost of the program, a portion of the subsidy will be recaptured by the Federal Government when the house is sold.

WHAT SHOULD FMHA'S ROLE BE?

What should FmHA's role be in serving the housing needs of the Nation's rural communities in future years? Should FmHA continue to make both farming loans and housing loans or should FmHA's housing programs be separated from its other activities? Should Farmers Home target more of its program toward those rural residents who have very low incomes? Can FmHA encourage a greater influx of private mortage money into rural areas through increased use of loan guarantees?

The United States is fortunate in that its rural areas contain some of the richest and most productive land in the entire world. Yet, on or adjacent to that land stands some of the worst housing in the country. A continuing challenge for Congress, the Federal Government and the Farmers Home Administration is how to help the Nation's rural citizens realize the richness that is to be found in the very land that forms rural America.

COMMUNITY FACILITIES IN RURAL AREAS: THE FEDERAL ROLE[1]

Adequate and modern community facilities are recognized as necessary both for the economic well-being and the welfare of rural residents. Currently the Federal Government has several programs underway to help provide facilities to rural communities. Among these facilities are: Water and sewerage systems, courthouses, recreation centers, schools, and health centers. Other Federal programs provide communities, both urban and rural, with funds which can be used for almost any purpose, including community facilities.

Of the many problems that have contributed to the difficulties rural communities have had in supplying public facilities, the historical trend of outmigration has been a major factor. Whatever caused the outmigration to take place—resource exhaustion, changes in demand, or improved technology—slow growth or actual loss of population made it hard for many rural places to obtain the funds needed to construct or upgrade community facilities. More recently, a number of rural areas throughout the country have faced a reversal in this historical trend and are currently facing a shortage of adequate community facilities for their growing population. In either case, rural communities have been unable to supply the necessary community facilities to their citizens.

The community facilities and services needed to maintain or develop a region include water, waste disposal, fire and police protection, schools, roads, health service centers, and recreation centers. In most cases nonmetropolitan areas lag behind metropolitan areas in per capita expenditures for such facilities and services. This is seen in the accompanying table: In all services, except roads and highways, per person expenditures of local governments in metropolitan areas exceeded those in nonmetropolitan areas in 1971–72. Quantitative differences in services make some of the comparisons very doubtful between

PER CAPITA EXPENDITURE OF LOCAL GOVERNMENTS FOR SELECTED SERVICES, METRO AND NONMETRO, 1971–72

Service	Metropolitan	Nonmetropolitan
Education	$248.64	$217.40
Health	8.76	3.58
Hospitals	28.86	23.49
Police protection	30.67	11.88
Roads and highways	28.12	37.45
Fire protection	15.90	5.01
Sanitation other than sewerage	9.64	3.44
Sewerage	19.40	8.00
Welfare	53.97	18.96

Source: U.S. Census of Governments, vol. 5, table 9. Committee print, The Economic and Social Condition of Nonmetropolitan America in the 1970's, p. 37.

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[1] By Philip Winters, economic analyst, Economics Division, Congressional Research Service, The Library of Congress.

metropolitan and nonmetropolitan areas, reducing the meaningfulness of the comparison.

A second factor is that to provide the same level of some facilities and services in rural areas as in metropolitan areas would be prohibitively expensive because of distances and low population densities that exist in rural areas. As an example, to provide the same type of sewerage system that metropolitan areas generally have in many nonmetropolitan areas would be so expensive on a per user basis as to make it impossible for the users to finance or maintain it without a large subsidy.

HISTORY OF GOVERNMENTAL EFFORTS

Community facilities have been a concern for all levels of government throughout the country's history. During the last 25 years, the Federal Government has established its role in assisting communities build a more modern infrastructure. Much of the current Federal effort is aimed at assisting in the development of rural areas that lag in their economic growth or suffer from adverse economic conditions.

The earliest form of Federal and State involvement in regional development took the form of subsidizing the settlement of the vast reaches of the American continent, and tying these areas together into a national market through efficient transportation networks. Early State and Federal aid went to railroads. As most of the Nation prospered and grew (partially due to the early State and Federal outlays), attention was focused on areas or regions which had been left out of this general development.

Later efforts, during the 1930's, were directed primarily at putting the unemployed to work but were also helpful in developing the instructures of many areas. The Tennessee Valley Authority is the prime example of Federal programs of that period designed specifically to enhance an area's development (or potential for development).

In 1961 the Area Development Act was passed in an attempt by the Federal Government to accelerate the process of development in lagging regions. One section of the act provided for loans and grants for public facilities. For communities to receive money for public facilities under this program the facilities must, among other things, "improve the opportunities for establishment or expansion of industrial or commercial plants."[2] This requirement reflected the belief that a community's infrastructure could influence its attractiveness to industry, and by the Federal Government's desire to avoid becoming the employer of last resort. But funding was a problem. Actual obligations for all programs over the life of the program came to approximately $352,000 per eligible county (there were more than 1,000 counties eligible).[3] In general, the level of assistance was too low to alter a county's economic condition.

The Area Redevelopment Administration (ARA) also had difficulties in committing all the authorized money in its first 2 years, obligating only $41.5 million of the total $75 million authorization for public facility grants. One writer thought this was primarily due to "a shortage of acceptable project applications."[4] The problem of obligating the authorized funds was eventually overcome, but the shortage of funds continued.

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[2] Cumberland, John H. "Regional Development, Experiences and Prospects in the United States of America," Paris, Moutan and Co. [1971] p. 7.

[3] Milkman, Raymond H., et al. "Alleviating Economic Distress." Lexington, Mass., Lexington Books [1972] p. 4.

A year after enactment of the area redevelopment program, the Public Works Acceleration Act of 1962 (Public Law 87–658) was passed and given to the Area Redevelopment Administration to administer. Projects under this act were to be of shortrun, cyclical duration and were intended to put people to work quickly. The act authorized $900 million for public works projects. These funds were "primarily for public utilities, roads, waste treatment plants, hospitals, public buildings, and recreational facilities."[5] The ARA managed to obligate all this money within 2 years. Less than 5 months after the accelerated public works program was enacted, so many applications for assistance had been received that further applications were discouraged. This large pipeline of applications was taken by some as an indication of the backlog of needs for community facilities that had accumulated over the years.

Because of functional and political problems with the development program (there were some unmet expectations and apparently unkept promises), the Congress replaced it with the Local Public Works and Economic Development Act of 1965 (Public Law 89–136). That same year also saw the enactment of a new kind of legislation that was intended to assist a particular region of America. Appalachia was the beneficiary under the Appalachian Regional Development Act of 1965 (Public Law 89–4). This law established the Appalachian Regional Commission (ARC). Title V of the Economic Development Act established the Regional Action Planning Commissions as multistate agencies designed to develop comprehensive economic development plans for their regions. These title V Commissions, now numbering 11 (New England, Coastal Plains, Upper Great Lakes, Ozarks, Old West, Four Corners, and Pacific Northwest, Mexican Border, mid-Atlantic, Midsouth, mid-America), in addition to being joint Federal, State, and local planning bodies, have the power to make some supplemental and demonstration grants for economic development purposes.

In 1972 the Rural Development Act (Public Law 92–419) was passed. This was viewed at the time as landmark legislation by supporters of a revived rural America. Also passed in 1972 was the State and Local Fiscal Assistance Act of 1972 (Public Law 92–512), better known as "general revenue sharing" which was renewed in 1976 (Public Law 94–488), and which provides funds to State and local governments for almost unlimited uses. Subsequently, the passage of the Housing and Community Development Act of 1974 (Public Law 93–383) required, in title I, that 20 percent of appropriated funds for the community development bloc grants must be obligated in rural communities. Title I of the Public Works Employment Act of 1976 (Public Work 94–369), called the Local Public Works Act (LPW), and the 1977 amendments (Public Law 95–28) which boosted the authorizations from $2 billion to $6 billion, provided funds to State and local governments for public works construction. A discussion of these current Federal programs is given below.

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[4] Ibid.

[5] Cumberland, op. cit.

CURRENT FEDERAL PROGRAMS

The Public Works and Economic Development Act of 1965 (Public Law 89-136) built on the experience with the Area Redevelopment Act and the Accelerated Public Works Act. The earlier measures had received both praise and criticism. The 1965 legislation was designed by its framers to take the best from the two earlier acts and drop or modify those areas criticized. The result was an act that aimed directly at local public works as a means of encouraging economic development. Other titles of the 1965 legislation were intended to encourage business and industry to locate in eligible regions, provide technical assistance to eligible areas on almost anything dealing with development, provide funds for local planning and administrative capacity, and to continue the ARA practice of conducting studies bearing on economic development.

Additional titles were passed in following years that broadened the act to include provisions for major disaster relief (title VIII), economic adjustment assistance for areas suffering or about to suffer major economic dislocations (title IX), and a job opportunities program to provide jobs in areas experiencing severe unemployment (title X).

Titles I and II are the ones that provide for public works and development facility grants and loans. The Economic Development Administration (EDA) of the Department of Commerce has funded over 4,600 public works projects in all 50 States and several territories, obligating over $2.2 billion through September 1977. That amounts to almost $480,000 per project. (See table 1.) These funds have gone for projects covering the whole spectrum of community facilities, from water and sewer improvements to courthouses and fire stations. This broad range of projects has caused some criticism to be leveled at EDA for funding projects that were eligible to be funded under other Federal programs. A limiting factor on the geographic distribution of EDA funds is the requirement that an area must be within an EDA designated region for it to be eligible for the majority of project funds. To meet these restrictions an area must be experiencing persistent high unemployment and/or a low level of income. Approximately two-thirds of all counties are eligible. Thus, not all rural communities are eligible for EDA development assistance.

As in most Government efforts of this type, the program is intended to cease in any area that begins to "develop" on its own, as indicated by some specified increase in employment and/or family income. The presumption is that the community (county or region) should then be able to provide its own facilities. Others argue that the Federal support will make these communities dependent on the Federal assistance indefinitely.

In addition, the Economic Development Administration was given the responsibility for running the Local Public Works Act of 1976 and 1977, which provided a total of $6 billion to local and State gov-

TABLE 1.—SUMMARY OF EDA OBLIGATED PUBLIC WORKS PROJECTS, BY STATE, CUMULATIVE TO SEPT. 30, 1977[1]

State	Public works: Number of projects	Public works: Amount (thousands)
Alabama	127	$45, 892
Alaska	81	46, 590
Arizona	98	42, 956
Arkansas	190	73, 828
California	278	144, 118
Colorado	38	12, 831
Connecticut	22	16, 881
Delaware	10	5, 496
District of Columbia	11	16, 496
Florida	51	17, 482
Georgia	124	57, 406
Hawaii	7	2, 966
Idaho	70	21, 761
Illinois	91	64, 182
Indiana	48	23, 449
Iowa	24	11, 152
Kansas	30	15, 311
Kentucky	198	96, 833
Louisiana	122	55, 459
Maine	54	13, 874
Maryland	15	12, 468
Massachusetts	56	49, 834
Michigan	161	73, 176
Minnesota	150	63, 149
Mississippi	216	97, 937
Missouri	95	31, 652
Montana	75	31, 794
Nebraska	27	16, 730
Nevada	31	5, 093
New Hampshire	20	8, 435
New Jersey	48	$30, 358
New Mexico	139	59, 340
New York	119	97, 348
North Carolina	138	66, 861
North Dakota	57	23, 158
Ohio	93	55, 403
Oklahoma	190	64, 093
Oregon	58	32, 629
Pennsylvania	137	77, 478
Rhoda Island	21	19, 154
South Carolina	115	48, 141
South Dakota	62	15, 013
Tennessee	155	72, 669
Texas	246	90, 292
Utah	50	18, 318
Vermont	17	6, 515
Virginia	41	19, 819
Washington	143	76, 238
West Virginia	135	73, 113
Wisconsin	99	32, 493
Wyoming	14	3, 325
American Samoa	3	1, 878
Guam	4	2, 776
Puerto Rico	71	54, 550
Trust territories	—	—
Virgin Islands	2	1, 251
United States general	1	596
Total	4, 678	2, 218, 040

[1] Does not include projects funded under title III, sec. 304, of the Public Works and Economic Development Act.

ernments in an effort to help alleviate the effects of the recession of 1974 and 1975 through the construction of local public works. This program, by itself, had obligated almost the whole $6 billion appropriation by the end of September 19[illegible] and must have contributed to the stock of community facilities in large numbers of rural communities. The data are not yet available on a metropolitan-nonmetropolitan split of the distribution of these funds. It should also be noted that this 2-year program provided more funds for the construction of public works than the Economic Development Administration programs have since their inception. (See table 2.)

The Rural Development Act of 1972 (Public Law 92-419) was passed in an effort "to provide for improving the economy and living conditions in rural America."[6] For this purpose, as Senator Talmadge said when the bill passed the Senate, "In this bill we put all the major components of rural development together in the same piece of legislation * * * ."[7] Under this act, the Secretary of Agriculture has become responsible for all areas of rural development, from making business loans to financing sewerage systems, from conducting research to making home loans. There is little that is not covered by the 1972 legislation. As with the Economic Development Act, our concern is with those aspects of the measure that relate to community facilities.

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[6] U.S. Congress, Senate, Committee on Agriculture and Forestry, Subcommittee on Rural Development. "1975 Revised Guide to the Rural Development Act of 1972." Washington, U.S. Government Printing Office, January 1975, p. 7.

[7] U.S. Congress, Senate, "The Rural Development Act of 1972—Analysis and Explanation." Washington, U.S. Government Printing Office, October 1972 p. 44.

SUMMARY OF EDA LOCAL PUBLIC WORKS PROJECTS, BY STATE, FOR FISCAL YEAR ENDING SEPT. 30, 1977

State	Round I		Round II		Total	
	Number of projects	Amount (thousands)	Number of projects	Amount (thousands)	Number of projects	Amount (thousands)
Alabama	25	$18,775	79	$34,631	104	$53,406
Alaska	17	10,239	116	45,586	133	55,825
Arizona	22	12,993	173	68,194	195	81,187
Arkansas	20	10,298	140	30,000	160	40,289
California	245	245,660	831	479,883	1,076	725,543
Colorado	12	12,221	97	30,572	109	42,794
Connecticut	32	47,602	151	80,674	183	128,277
Delaware	16	10,006	70	29,864	86	39,870
District of Columbia	7	10,000	15	30,000	22	40,000
Florida	121	133,775	271	161,647	392	295,423
Georgia	32	25,064	245	76,681	277	101,745
Hawaii	14	9,921	56	30,201	70	40,122
Idaho	19	10,047	98	30,565	117	40,613
Illinois	56	63,772	177	89,763	233	153,536
Indiana	27	22,317	102	39,893	129	62,211
Iowa	16	11,778	116	30,000	132	41,778
Kansas	17	10,104	104	30,263	121	40,367
Kentucky	14	15,748	83	30,600	97	46,348
Louisiana	51	24,743	81	35,664	132	60,408
Maine	19	10,000	96	30,067	115	40,067
Maryland	25	19,594	73	39,282	98	58,876
Massachusetts	39	50,702	211	133,844	250	184,546
Michigan	103	155,440	417	215,581	520	371,021
Minnesota	22	16,808	81	30,972	103	47,781
Mississippi	18	10,000	129	31,885	147	41,886
Missouri	23	19,488	80	36,590	103	56,079
Montana	14	10,000	60	32,978	74	42,978
Nebraska	14	10,207	45	30,522	59	40,729
Nevada	21	10,045	66	31,985	87	42,031
New Hampshire	12	10,093	67	30,000	79	40,093
New Jersey	61	99,371	486	221,966	547	321,337
New Mexico	19	10,301	125	52,442	144	62,743
New York	183	231,664	740	493,000	923	726,972
North Carolina	35	28,440	110	45,454	145	73,894
North Dakota	11	10,073	100	29,999	111	40,073
Ohio	49	58,799	371	156,680	420	215,479
Oklahoma	36	15,455	117	50,979	153	67,434
Oregon	40	29,137	144	56,735	184	85,873
Pennsylvania	69	82,246	391	186,980	460	269,227
Rhode Island	13	15,933	36	32,904	49	48,837
South Carolina	22	13,655	96	30,259	118	43,915
South Dakota	10	10,257	193	34,795	203	45,052
Tennessee	42	23,862	113	30,863	155	54,725
Texas	68	54,694	175	91,240	243	145,934
Utah	14	10,072	74	31,823	88	41,896
Vermont	24	10,022	109	31,243	133	41,265
Virginia	13	22,028	105	40,455	118	62,484
Washington	39	40,131	153	79,220	192	119,352
West Virginia	20	10,207	95	31,052	115	41,259
Wisconsin	29	21,376	106	34,821	135	56,197
Wyoming	11	10,335	77	29,999	88	40,335
American Samoa	1	3,922	1	1,779	2	5,702
Guam	3	2,153	8	6,280	11	8,433
Puerto Rico	174	116,076	273	168,052	447	284,128
Trust Territories			25	6,760	25	6,760
Virgin Islands	3	4,130	2	5,180	5	9,310
United States general						
Total	2,062	1,962,798	8,555	4,011,674	10,617	5,974,473

Source: 1977 annual report, Economic Development Administration.

Several sections or subsections of the act deal with community facilities, such as water and waste systems and community fire protection.[8] The funds obligated under these provisions came to over $554 million in fiscal year 1974, almost $830 million in fisal year 1975, $780 million in fiscal year 1976, and $1,295 million in fiscal year 1977.[9]

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[8] "Section by Section Status of the Rural Development Act of 1972." Department of Agriculture. Revised June 30, 1975. Fiscal year 1974 was the program's first full year of operation. "The Budget of the United States Government." Fiscal year 1977. Appendix.

[9] In addition, $460 million were provided in guaranteed or insured loans for business and industry in rural areas. Some feel this will have an effect on the ability of rural communities to finance needed facilities.

Some have argued against both the Economic Development Act and the Rural Development Act on theoretical and practical grounds. They claim that the amounts of money going into these two programs are too small to have a significant impact on the massive problems that exist in rural areas. President Nixon agreed, when the Rural Development Act was passed in 1972, that his special revenue sharing plan was a better way of helping rural America; that letting local communities decide how to spend Federal funds is better than having Federal officials in Washington decide the kinds of programs that are best for much of rural America.

A general revenue sharing program adopted during the Nixon administration has provided almost $42 billion in Federal funds since 1972 to State and local governments, of which almost $28 billion has gone to municipalities, counties, and townships in both metropolitan and nonmetropolitan areas.[10] These funds can be and are used for virtually any necessary purpose, including community facilities by the recipient governments. In the latest fiscal year, $1.1 billion of funds went to local governments in nonmetropolitan areas out of a total $4.1 billion distributed to local governments throughout the country.[11]

Outlays for this program to both State and local governments in fiscal year 1979 are expected to be approximately $7 billion.

Another program that has an impact on rural community facilities, although limited geographically, is that of the Appalachian Regional Commission (ARC). This program, in existence since 1965, is aimed at developing the Appalachian region of the United States, covering parts of 12 States and all of West Virginia. ARC promotes improvements in the area's transportation, infrastructure, housing, and other facilities that may contribute to the region's development. From its inception until August 1, 1978, the Commission completed almost 2,000 miles of new highways, funded 1,179 projects under their demonstration health program and funded 2,962 projects under their public facilities assistance program.[12] Clay Whitehead, the Federal cochairman of the Appalachian Regional Commission, estimated in 1975 that the needs in Appalachia for better water, sewerage, solid waste, and recreation facilities exceeded $7.2 billion.[13] As can be seen in the table that follows (table 3), the largest share of the funds has gone for highway construction, which has been considered the cornerstone of the development program. Table 4 shows the types of community development projects funded in fiscal year 1977.

The Commission is generally seen as aggressive in attempting to create self-sustaining growth in Appalachia through development strategies. Criticism of the program comes from two areas and is similar to the criticism leveled at EDA. The first claims the amount of money allocated is not nearly enough to do the job, and therefore the Government should allocate enough to ensure that the goals of the

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[10] U.S. Department of Treasury. Office of Revenue Sharing. "General Revenue Sharing 25th Payment; 4th Quarter/Entitlement Period 9." Oct. 6, 1978. Washington, U.S. Government Printing Office, 1978. 273 pp.

[11] U.S. Department of Agriculture. Economics, Statistics, and Cooperatives Service. "Federal Outlays in Fiscal 1976: A Comparison of Metropolitan and Nonmetropolitan Areas." Washington, D.C. August 1978. 64 pp.

[12] Appalachia. vol. 12, No. 1, August–September, 1978.

[13] U.S. Congress. Senate Committee on Public Works. Subcommittee on Economic Development. Extension of the Appalachian Development Act: Hearings, 94th Cong., 1st sess., Mar. 10, 11, 12, and June 3, 1975, Washington, p. 359.

TABLE 3.—APPALACHIAN REGIONAL DEVELOPMENT PROGRAMS APPROPRIATIONS BY PROGRAM

[In thousands of dollars]

Section of act and program	For 2-year fiscal period				By fiscal year					Cumulative through 1977	1978 to date
	1965–66-67	1968-69	1970-71	1972-73	1974	1975	1976	Transition quarter	1977		
Area development programs						125 000	117, 500	8, 000	109, 500	1, 173, 791	105, 000
202—Health demonstration	23, 500	21, 400	76, 000	94, 000	43, 000	(7)	(7)	(7)	(7)	(7)	(7)
211—Vocational education facilities	16, 000	26, 000	49, 000	53, 500	25, 000	(7)	(7)	(7)	(7)	(7)	(7)
214—Supplemental grants	75, 000	[2] 66, 450	[3] 82, 500	75, 500	34, 000	(7)	(7)	(7)	(7)	(7)	(7)
205—Mine area restoration	[1] 22, 600	[2] 335	9, 000	15, 000	[6] 4, 556	(7)	(7)	(7)	(7)	(7)	(7)
205—Fish and wildlife	[1] 1, 450										
Subtotal	138, 550	114, 185	216, 500	238, 000	106, 556	125, 000	117, 500	8, 000	109, 500	1, 173, 791	105, 000
207—Housing fund		2, 000	2, 000	4, 000	1, 500					9, 500	
302—Research and LDD	5, 250	4, 600	13, 000	18, 000	7, 500	8, 500	8, 500	4, 500	8, 500	78, 350	7, 400
203—Land stabilization	10, 000	[2] 6, 115	3, 000							19, 115	
204—Timber development	[1] 600		[4] —42							558	
212—Sewage treatment	6, 000	1, 400			[6] 556					6, 844	
206—Water resources survey	3, 000	2, 000								5, 000	
Total, nonhighway	163, 400	130, 300	234, 458	[5] 260, 000	115, 000	133, 500	126, 000	12, 500	118, 000	1, 293, 158	112, 400
201—Highways	300, 000	170, 000	350, 000	380, 000	155, 000	160, 000	162, 200	37, 500	185, 000	1, 899, 700	211, 300
Total program	463, 400	300, 300	584, 458	640, 000	270, 000	293, 500	288, 200	50, 000	303, 000	3, 192, 858	323, 700
Administrative expenses	2, 390	1, 596	[4] 1, 900	2, 330	1, 492	1, 747	1, 870	495	1, 925	15, 745	2, 075
Grand total	465, 790	301, 896	586, 358	642, 330	271, 492	295, 247	290, 070	50, 495	304, 925	3, 208, 603	325, 775

[1] Adjusted for transfer to non-Appalachian programs of $400,000 each program.
[2] Adjusted for reprogramming actions.
[3] Includes $8,500,000 1971 Supplemental Appropriations Act for airport projects.
[4] Adjusted for transfer of $42,000 prior year balance to administrative expenses.
[5] Includes $15,000,000 supplemental Agnes flood appropriation ($11,000 sec. 205; $3,500 sec. 302; $1,500 sec. 207).
[6] Adjusted for transfer of $556,000 from sec. 212 to sec. 205.
[7] Included in area development program total above.

Source: 1977 annual report, Appalachian Regional Commission.

TABLE 4.—COMMUNITY DEVELOPMENT PROJECTS APPROVED IN FISCAL 1977

[In thousands of dollars]

Type of project	Amount	Number of projects
Water systems/water and sewer systems	$23,325	76
Sewerage systems	6,076	24
Low- and moderate-income housing	4,796	6
Recreation and tourism	1,563	11
Industrial site development	3,385	12
Community improvement	1,879	9
Solid waste disposal systems	2,071	13
Total	43,095	151

Source: 1977 annual report, Appalachian Regional Commission.

program can be accomplished or should stop wasting the money now being expended. The other claims that attempting to revive a region that is declining because of adverse economic factors is a futile exercise in development assistance. These critics argue that public subventions cannot revitalize a region that is economically nonviable.

With the current flux in the energy situation, the abundant coal reserves in Appalachia may make the region economically attractive with or without Federal aid. This may make the argument a moot point, since it may become impossible to distinguish between the effects of the Appalachian Regional Commission's efforts and the effects of the changing demand for coal on the region.

The community development bloc grants from the Department of Housing and Urban Development have also been a source of funds to local governments. Title I of the Housing and Community Development Act of 1974 requires that 20 percent of the funds appropriated be allocated to nonmetropolitan communities. The funds from this program can be used in a wide variety of approved ways as the local community sees fit. Total budget authority in fiscal year 1978 was $3.6 billion, of which $720 million were available to nonmetropolitan areas under this program.

Other Federal agencies also have programs that are closely related to building or supporting community facilities. The Rural Electrification Administration has loan programs for rural electrification and rural telephones. The Bureau of Indian Affairs dispenses funds to Indian reservations for a variety of community facilities. The Bureau of Land Management in the Department of Interior and the Federal Aviation Administration both have funds available for work on local airports. These various programs have several purposes to fulfill, but basically they are viewed as ways to improve the living conditions of rural Americans.

One other Federal activity that can and does have a major impact on rural communities should be mentioned. The ability of the Federal Government to move large facilities from place to place, whether military bases or civilian installations, can have a significant, and sometimes traumatic, effect on a community. If a Government installation moves into a small community, the community may find its facilities overwhelmed. If a Government installation closes, a community may find itself with unused facilities and a rapidly declining economy.

Some attempts have been made to ease the hardship on communities resulting from a closing or transfer of a government installation. Adjustment assistance is made available both under title IX of the Public Works and Economic Development Act of 1965 and an economic adjustment assistance program run by the Department of Defense.

PROSPECTS FOR FEDERAL AID FOR COMMUNITY FACILITIES

In a series of questions from a Senate hearing in April 1978, Mr. Alex Mercure, Assistant Secretary for Rural Development, U.S. Department of Agriculture, responded to one dealing with essential community facilities and future budget constraints in this manner. "Any facilities may on occasion be essential to a particular community * * * However, communities must * * * establish priorities among facilities they may view as essential. [I]t is certain that there will not be enough money available [from the Federal Government] to meet all needs for community facilities and services." [14]

While there may never be "enough" money to meet "all" needs, this statement suggests the near-term prospects for Federal aid for rural (and urban) community facilities. It would be unreasonable at this time to expect massive new infusions of Federal aid for rural community facilities. It is unlikely, on the other hand, that current programs will be eliminated or drastically curtailed, since they enjoy considerable political support. Short-term Federal efforts may center on better coordination of the programs already in existence and continued at roughly current levels, in a move to make more efficient use of the resources available.

Many of the current Federal programs are designed to aid in the economic development of rural communities, and will continue to provide needed and desired facilities to many communities throughout the country. From the community standpoint, this may be highly desirable and may in some instances contribute to the goal of longer term, self-sustaining economic growth. In many instances it is more likely that the assistance these communities receive will not in and of itself lead to economic growth. Changes in other underlying conditions would have to occur before sustainable economic growth could take place.

The Federal programs currently in existence are not thought by many to be capable of causing the necessary changes, except perhaps in borderline cases. There is little available evidence to suggest that the programs being discussed are able, on their own, to create the necessary conditions for continuing economic growth. They may be helpful, but rarely seem to be decisive. But the programs do contribute, in a very meaningful sense, to the well-being of the citizens of many rural communities.

We now confront two questions about these aid programs. The first deals with why the Federal Government is providing community facilities to rural areas. The answer is a mixture of two concerns of the Federal Government. One is that through the supplying of community facilities to rural areas, the Federal Government can make a positive contribution to the economic possibilities of the area and may even encourage economic growth in the region which, if everything goes well, should contribute to the economic growth of the entire country. The other motive for Federal assistance is one of equity. It is seen as fair to help provide facilities to those communities and areas that are unable to provide the facilities themselves, especially facilities that are essential for a community's health and welfare. The Federal Government, therefore, provides community facilities to various places for a combination of two reasons: Because it may contribute to national economic growth, and because it is humane and just.

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[14] U.S. Congress. Senate. Committee on Agriculture, Nutrition, and Forestry. Subcommittee on Rural Development. Hearings, 95th Cong., 2d sess. Apr. 25, 1978. Washington, U.S. Government Printing Office, 1978, p. 36.

The second question deals with the problem of how best to provide the facilities. The Federal Government has answered this question in several ways by establishing programs that deliver aid by different methods. Both the Economic Development Act and the Rural Development Act are categorical grant and loan programs that stipulate what the Federal funds can and cannot be used for. The community development bloc grants of the Department of Housing and Urban Development and the general revenue sharing program are more flexible for the recipients. Once the applicant receives the funds, the funds can be used, within limits, at the discretion of the recipient.

In the 96th Congress, both the Economic Development Administration and Appalachian Regional Commission programs are up for renewal. It is likely that both will be funded at approximately their present levels for several more years. Minor changes may occur in some of their programs, but, as of this writing, drastic additions or curtailments, appear unlikely.

Administrative changes currently under consideration deal with consolidating some or all of the economic development programs, which would include the ones providing community facilities, into one department or agency, to allow for better overall coordination of the various programs. A different change would be the consolidation of the rural development coordinating function within the Department of Agriculture, as called for by the Rural Development Act of 1972, but never fully implemented.

In addition, there have been some discussions and movements within both the Department of Housing and Urban Development and the Economic Development Administration to expand the geographic scope of their respective activities. EDA has proposed that more of its assistance go to distressed urban areas, while HUD wants to expand its services into more rural areas. There is the possibility of a future clash between these two agencies over their potentially overlapping jurisdictions.

In general, further consolidation of categorical programs or the conversion of current programs to unrestricted bloc grant type is unlikely in the immediate future. Congress has expressed its desire to maintain both types of programs by extending both types in the recent past. Any major change in this mix of programs will require a significant alteration in national or regional economic conditions, or in the thinking of Congress.

CONCLUSION

The Federal Government has decided that it is in the best interests of the Nation to assist in providing facilities to rural areas. The kinds of programs and the spending levels of the programs are frequently brought up for debate or revision in Congress. If the main thrust of these various programs is to provide rural communities with needed facilities to improve living conditions, they are somewhat successful. If providing community facilities is just one of several means to achieve the goal of economic development, what success there has been is much less clear and uniform. Some areas of depressed rural America that have received aid through these programs remain economically underdeveloped.

The absence of economic development in some depressed areas is not necessarily the fault of the Federal programs. There are so many factors involved in the economic development of a region, that no one program can be blamed for not producing economic development. It is entirely possible that some areas may never respond to any economic development program and may remain economically stagnant and depressed. For these areas, the purpose of supplying community facilities becomes a matter of social welfare and not an attempt at supplying the infrastructure necessary for the economic development of the community.

Because of continuing innovation and adjustment, it is not possible to pass final judgment on the usefulness and efficacy of Federal programs designed to provide community facilities to rural areas and, in a larger sense, to supply a needed condition for the economic development of America's rural communities. The programs are obviously supplying communities with facilities that many would otherwise be doing without. It is also evident that the demand for aid will almost always exceed the supply of Federal money available for this purpose. Questions remain: Are there better ways of providing the aid? Should the aid be directed primarily as a means of aiding development or as a means of providing for the welfare of rural residents in depressed areas, or as some combination? Should completely different methods of aid be tried? The current programs are supplying facilities, but they are not entirely successful in either encouraging economic development or in providing the number of facilities desired in many rural communities.

FINANCING RURAL DEVELOPMENT: CREDIT NEEDS AND RESOURCES [1]

Any realistic approach to the subject of rural development must include an examination of the relative roles of the private sector, of State and local government, and Federal Government initiatives. Since one purpose of this series of papers is to focus on implementation of the Rural Development Act of 1972 as a means of stabilizing population and raising the number and level of jobs in rural areas, this paper will primarily consider credit (loan) aspects of the act. First, there is a discussion of the broad question of financial needs and resources of both the public and private sectors as related to rural development goals defined under the act. Second, there is a discussion of implementation of one of the most publicized features of the act: The provision to involve private lenders in rural development financing through a system of Federal loan guarantee programs for business and industry loans and farm ownership and farm operating loans.[2] Finally, there is a discussion of some of the recent developments which may influence financial flows to and within rural America in the future and some general concluding observations.

FINANCIAL NEEDS AND RESOURCES AS RELATED TO RURAL DEVELOPMENT GOALS ESTABLISHED UNDER THE RURAL DEVELOPMENT ACT OF 1972

One of the provisions of the Rural Development Act of 1972 provides for the establishment of rural development goals dealing with employment, income, housing, community facilities, and population. Although credit is not specifically mentioned, it was implicit in the act that these goals would be achieved through Government grants, loans, and private sector participation. Before developing this point further, it is necessary to make a few remarks about the background of the Rural Development Act of 1972 and what was in the mind of Congress when it asked the Secretary of Agriculture to submit an annual report on rural development goals.

The Rural Development Act of 1972 was in effect a compromise between an administration arguing for a revenue sharing plan along with the transfer of much of the planning, financing, and administering of State and local activities to State and local governments as opposed to a congressional feeling that the Federal Government should have even greater leverage in encouraging patterns of rural development.

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[1] By F. Jean Wells, analyst in money and banking, Economics Division, Congressional Research Service, The Library of Congress. In connection with this paper, the author wishes to acknowledge the help of Dr. Morton J. Schussheim, senior specialist in housing, CRS, as coordinator of the project on rural America of which this paper is a part, and of Miss Pauline Smale, economic analyst, whose earlier work on the role of banks in rural development has been especially helpful in developing the second part of this paper.

[2] Other important provisions of the Rural Development Act of 1972 dealing with both the public funding of community services and facilities, including water and waste disposal facilities, and Governmental aids to housing finance, are considered in separate papers on "Community Facilities and Rural Housing."

At the same time both the administration and the Congress seemed to feel that the rural development efforts of the preceding decade had been too piecemeal—that what was most needed was a pulling together of the many different authorities or programs, together with some new supplemental authorities and funds, into a single coordinated overall program directed at the main rural development problems on which the administration and Congress were generally agreed. So the act is basically an expansion and amendment of existing statutes. Finally, for most public authorities in the act, "rural" includes everything outside any city or town of 10,000—which encompassed about 30 percent of the U.S. population in 1970, with the major exception for the business and industry loans and grants sections, where "rural" includes everything outside cities of 50,000 or more and their immediately adjacent urbanized and urbanizing areas—probably about 40 percent of the U.S. population in 1970.[3]

In order to assist in achieving the desired integration of the various authorities relating to such things as rural industrialization loans, improvements of community facilities, housing, research and extension activities, and the natural resource authorities—including pollution abatement, the act directs the Secretary of Agriculture to establish employment, income, population, housing, and quality of community services and facilities goals for rural development as well as to report annually to the Congress in connection therewith. Also the act provides for planning grants to go to public bodies or "such other agencies" as the Secretary may select.

In connection with these provisions relating to a comprehensive planning program involving State and local agencies or people as well as representatives of the Federal Government and to the annual goals reporting requirement, it is clear that Congress was asking for the development of a much more concise and measurable conceptual framework for dealing with rural development than previously existed. That is, it would seem that the Congress felt that much of what had previously been said about rural development lost itself in a "welter of words" and that a sincere effort should be made to work as fast as possible toward objective specification both as a means of measuring progress and of assisting in more efficient administration.

At the time the "Second Rural Development Goals Report" was delivered to Congress in the summer of 1975, only the most general goals were stated:

> *Employment.*—Assist in the creation of a climate conducive to growth in the employment base of rural America, thereby providing a range of job opportunities for those who wish to live in rural areas.
>
> *Income.*—Contribute to the development of job opportunities in rural areas which generate incomes equal in terms of effective purchasing power to those in metropolitan areas.

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[3] Daft, Lynn M. (Assistant Deputy Administrator, Economic Research Service, U.S. Department of Agriculture). "The Rural Development Act of 1972: What Is It?" Undated paper, p. 5.

Population.—Support a "balance" between rural and metropolitan populations compatible with the overall national quality of life and economic health.

Housing.—Facilitate the attainment of access to standard quality housing in rural areas equal to that in metropolitan areas.

Community services and facilities.—Aid local governments and other entities to provide access to adequate community services and facilities in rural areas.[4]

There have been a few attempts to pull together information about financing sources and needs; however, the few studies so far available have pointed out the fact that statistics do not now exist which make quantitative statements possible.

For example, a provision of title IX of the Agricultural Act of 1970 was that the President should report to Congress concerning the possible utilization of the Farm Credit Administration and other Department of Agriculture agencies "to fulfill rural financial assistance requirements not filled by other agencies." The report together with recommendations for legislation were due by July 1, 1971. The report, delivered July 26, 1971, in addition to policy recommendations, identified public and private sources of funds for agriculture, industrial development, housing, community development, and other activities in rural areas.[5]

"It described qualitatively some of the shortcomings to meet these needs. While the first report was entitled "Annual Report," continuing reporting on financial assistance was not required by legislation and apparently the report was not repeated.[6]

During the past year, there have been a number of congressional initiatives which have resulted in reports on credit flows in rural areas: however, again they have not provided information in the form of estimates of overall amounts of public and private financial resources needed or available to meet rural credit needs.

One such report is that provided by Pab DuBois, Federal legislative committee, Independent Bankers Association of America, before the Joint Economic Committee in July 1975, in response to the invitation of the chairman "to present the views of the IBAA with respect to (a) the adequacy of the flow of credit to agriculture and to rural America, and the extent to which rural bankers are meeting the credit needs of farmers; (b) alternative institutional arrangements which might be made to facilitate credit flows to agriculture; and (c) what steps Congress could take to insure the competitive viability of the Nation's independent banks." [7]

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[4] This goals statement also appears in "U.S. Department of Agriculture Rural Development Goals. Third Annual Report of the Secretary of Agriculture to the Congress" (pursuant to title VI, sec. 603(b), of the Rural Development Act of 1972). [Washington, 1976] p. 2.

[5] This report, entitled: "Annual Report on Financial Assistance to Rural Areas." Message from the President of the United States transmitting the "First Annual Report on Financial Assistance to Rural Areas," pursuant to title 9 of the Agricultural Act of 1970, was printed as a House document: 92d Cong., 1st sess. House. Document 92–147.

The report also is reprinted in: U.S. Congress. House. Committee on Ways and Means. "General Tax Reform" (testimony from administration and public witnesses). Hearings, 93d Cong., 1st sess. Part 8 of 18. Washington. U.S. Government Printing Office, 1973. Mar. 27, 28, 1973. Pp. 3574–3627.

[6] The Agricultural Act of 1970 (Public Law 91–525, Dec. 1, 1970) provides in title IX:

FINANCIAL ASSISTANCE

(f) The President shall report to Congress on the possible utilization of the Farm
Credit Administration and agencies in the Department of Agriculture to fulfill rural
financial assistance requirements not filled by other agencies. The President is re-
quested to submit the report requested by this section on or before July 1, 1971, to-
gether with such recommendations for legislation as he deems appropriate. The act
also provides in title IX(e) for a report to be prepared annually on Government
services to rural America which includes information on the delivery of Government
and Government-assisted services to rural areas. The most recent in this series of
reports was published as U.S. Congress. House. Committee on Agriculture. "Government
Services to Rural America." Message from the President of the United States transmit-
ting the "Sixth Annual Report on Government Services to Rural America," pursuant
to sec. 901(e) of the Agricultural Act of 1970. Washington. U.S. Government Printing
Office, 1976. (94th Cong., 2d sess. House Document 94–459) 57 pages.

The testimony, while good, focuses primarily on the problems or desires of rural banks.

On September 18, 1975, Dale L. Stansbury, economist, Senate Agriculture and Foresty Committee, delivered a paper: "Financial Resources in Rural America," at a meeting of interested congressional offices, Federal Government agencies, and trade association representatives convened by the Senate Subcommittee on Rural Development, the House Subcommittee on Family Farms and Rural Development, the House Subcommittee on Conservation and Credit, and the Congressional Rural Caucus to discuss rural financing problems.[8] This paper discusses the adequacy of financial resources in rural areas from an institutional point of view and outlines the role of the Federal Reserve, the "money market," commercial banks, savings and loan associations, insurance companies, the Farm Credit System, and Federal financial resources for rural housing, again primarily in qualitative terms.

Finally, in response to a request from the Senate Appropriations Committee, Subcommittee on Agriculture and Related Agencies, the U.S. Department of Agriculture supplied a report on "Credit Needs in Rural America." The primary focus is on the agricultural sector, but particular areas of nonfarm interest are identified: Housing, consumer purchases, nonfarm business, and local governments.[9]

Most recently, the "Third Annual Report on Rural Development Goals," transmitted by the Secretary of Agriculture to Congress on May 7, 1976, has become available. While this report has progressed beyond the second to discuss program implementation to meet goals, it does not provide a statement of aggregate financial assistance provided or needed in order to meet goals.[10]

Thus, some general goals for rural development have been identified and some studies have begun to identify the sources of funds available and the uses to which they are put. However, unlike other areas covered in the Rural Development Act there is as yet no real annual assessment of credit needs and resources.

Most sources and uses of funds analysis has been on an aggregate U.S. or a sectoral (agricultural, household, business, and government) basis rather than on a geographic basis. The studies that have been attempted to date point up the fact that more information needs to be developed on the subject of financial needs and resources in rural America. As a result, one proposed bill, H.R. 11846, first introduced by Mr. Breckinridge and cosponsors, February 10, 1976, provides that "financial resources and credit requirements" be made part of the annual goals report.

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[7] U.S. Congress. Joint Economic Committee. "Private Sector Credit Availability." Hearings. 94th Cong., 1st sess. July 17, 1975. Washington. U.S. Government Printing Office, 1975. 45 pages.

[8] Stansbury, Dale L. (Senate Agriculture and Forestry Committee). "Financial Resources in Rural America." Sept. 18, 1975. 13 pages plus tables.

[9] The U.S. Department of Agriculture report, "Credit Needs in Rural America," is reprinted in U.S. Congress. House. Committee on Appropriations. Subcommittee on Agriculture and Related Agencies. "Agriculture and Related Agencies Appropriations for 1977." Hearings. 94th Cong., 2d sess. Pt. 4. Washington. U.S. Government Printing Office, 1976. p. 721–754. The report is also discussed beginning on page 1017 in U.S. Congress. Senate. Committee on Appropriations. "Agriculture and Related Agencies Appropriations. Fiscal Year 1977." Hearings. 94th Cong., 2d sess. Pt. 2. Washington. U.S. Government Printing Office, 1976.

[10] "Rural Development Goals. Third Annual Report of the Secretary of Agriculture." For complete citation see footnote 4.

FARMERS HOME ADMINISTRATION LOAN GUARANTEE PROGRAMS IMPLEMENTED PURSUANT TO THE PROVISIONS OF THE RURAL DEVELOPMENT ACT OF 1972

One of the most important features of the Rural Development Act of 1972 is the increased emphasis on private lending institutions' participation in the development process through Federal loan guarantee programs. Among such programs initiated or strengthened as a result of the act are the business and industry loan program and the farm operating and farm ownership programs of the Farmers Home Administration (FmHA). These programs are described in more detail below. There follows a discussion of some of the problems which have been identified so far for increasing the use of guarantee programs as well as some discussion of actions being taken to resolve these questions. Since one of the keys to rural development is considered to be industrialization, there has been much interest in the implementation of the FmHA business and industry loan program and this is also discussed.

A. Description of programs

Whereas originally the Farmers Home Administration (FmHA) was conceived as a supervised credit agency for farmers unable to obtain credit elsewhere, the congressional review of FmHA has broadened to the point that today FmHA has become a multifaceted credit agency, serving many areas of rural development. At the present time credit programs include four main areas: Farmer programs, housing programs, community programs, and business and industry programs.

Today, most FmHA loans are made on an "insured" or "guaranteed" basis. Insured loans are made, funded, and serviced by FmHA. Guaranteed loans are made, funded, and serviced by private lenders with a FmHA guarantee that the lenders will not lose a certain percentage of the loan—usually 90 percent.

FmHA insured loans are made from three loan revolving funds which also support the liabilities stemming from the guarantees of other lenders' loans. These funds include the Agricultural Credit Insurance Fund (ACIF), from which all farmer program loans are made; the Rural Housing Insurance Fund (RHIF) for housing loans; and the Rural Development Insurance Fund (RDIF), established under the Rural Development Act of 1972, which includes water and sewer and other community facilities and business and industry loans. Appropriations supplied the initial capital for the funds; the three revolving funds are maintained from interest and loan repayments on loans held by FmHA and the sale of FmHA investor securities. Since 1974, all investor securities, known as certificates of beneficial ownership, have been sold to the Federal Financing Bank. The amounts available for insured and guaranteed loan activities are set by the Appropriations Committees and the Office of Management and Budget; the operating expenses, grants, and losses incurred in the revolving funds of FmHA are funded through appropriations.

As previously noted, farm ownership and operating loans and business and industry loans may be insured or guaranteed. A detailed description of each of these loan programs follows:

1. *Farm operating loans.*—Farm operating loans are insured or guaranteed loans, usually secured by chattel mortgage, to assist farmers lacking other sources of credit to purchase feed, seed, fertilizer, livestock, machinery, and other factors of production. Terms usually range from 1 to 7 years according to the purpose of the loan; the statutory loan limit is $50,000. The borrowers' interest rate is computed according to formula each July 1 and is 8½ percent for fiscal year 1976. On guaranteed loans, FmHA pays a loan subsidy making up the difference between the borrowers' rate and a rate determined by FmHA after considering current average market yield. Under this program, insured loans are reviewed periodically and those borrowers who can do so refinance through conventional lenders, thereby graduating to private credit.

2. *Farm ownership loans.*—Farm ownership loans are insured or guaranteed loans primarily used to assist farmers lacking other sources of financing to buy, improve, or enlarge farms they operate. Statutory limits are $100,000 for a single loan at 5 percent interest with up to 40 years for repayment. On guaranteed loans, FmHA makes loan subsidy payments to private lenders to bring the lender's return up to either the lender's usual rate for such loans or the FmHA-established rate.

Loans are usually secured by mortgage on the farm real estate. Under action taken by FmHA in 1970 to increase its cooperation with other lenders in jointly serving farm loans, FmHA may accept a second lien on real estate securing loans of other lenders if the total indebtedness against the real estate does not exceed $225,000. This has the effect of allowing private and cooperative lenders and FmHA to make loans to the same borrower on the same security.

3. *Business and industry loans.*—Business and industry loans are insured or guaranteed loans to public, private, or cooperative organizations and individuals in low-density communities with populations of up to 50,000 for purposes of financing operations, purchases, and development of business and industry. Special consideration for such loans is given to rural places of less than 25,000 population. Repayment terms range up to 30 years. While both insured and guaranteed loans are provided by statute, most loans are guaranteed with the interest rate determined by the lender and the borrower.

Other provisions of the Rural Development Act of 1972 authorize FmHA to participate with the Economic Development Administration, the Small Business Administration, the Department of Housing and Urban Development, and other Federal and State agencies and private financial institutions. Provisions to guard against increasing production in an area where existing productive capacity is not being efficiently utilized are also included.

The business and industry loan program was first implemented in fiscal year 1974 with a loan limit of $200 million. Since then, the annual authorization has been $350 million. Farm ownership loans are currently authorized at a $450 million annual level, and farm operating loans at $625 million. The actual fiscal year 1975 program level, broken down as between insured and guaranteed loans was as follows:

[In thousands]

	Fiscal year 1975 program level	
	Insured	Guaranteed
Agricultural Credit Insurance Fund:		
Farm ownership loans	$532, 909	$17, 878
Farm operating loans	350, 692	941
Rural Development Insurance Fund: Business and industrial loans	10, 342	[1] 339, 652

[1] U.S. Congress. House. Committee on Agriculture. FmHA Management Capability. Joint hearings before the Subcommittee on Conservation and Credit of the Committee on Agriculture, House of Representatives and the Subcommittee on Agriculture and Forestry, U.S. Senate, 94th Congress, 2d session. Jan. 27, 28, 29 and Feb. 4 and 5, 1976. Washington, U.S. Government Printing Office, 1976. (Serial No. 94-UU) p. 253.

While there does not appear to be much published information concerning the participation of various types of private and cooperative lending institutions in the guaranteed loan programs, the "Third Annual Goals Report" does include the following information for the business and industry loan program for its first year of implementation:

General analysis of the types of lenders involved in the business and industrial loan program

(Based on data through June 30, 1974) [2]

	Percent
Guaranteed loans:	
Commercial banks (State and national banks)	87. 6
Savings banks	(1)
Savings and loan associations	3. 8
Insurance companies	(1)
Other lenders (includes mortgage bankers, brokers, leasing companies, production credit associations)	5. 5
Insured loans: FmHA-insured loans (to Indian tribes and public bodies)	2. 4
Total	100. 0

[1] Less than 0.5 percent.
[2] "Rural Development Goals. Third Annual Report of the Secretary of Agriculture." p. 38.

B. Issues

Since the passage of the Rural Development Act of 1972, congressional committees have been involved in continuing oversight of implementation of the act's provisions. A series of hearings in the 94th Congress has identified several areas where participation of private lenders in the guarantee programs could be improved.[12] Major sources of input have been the American Bankers Association (ABA), which indicates that about one-half of the Nation's more than 14,000 banks, most of which are members of the ABA, are located in communities of less than 5,000, and the Independent Bankers Association of America (IBAA) which indicates it represents some 7,300 banks of which about 90 percent do business in communities where the population is 5,000 or under. A study of FmHA personnel management by the General Accounting Office in September 1975 also deals with the subject of increasing commercial financing.[13]

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[12] Oversight hearings in the 94th Congress on the Rural Development Act include:

FmHA management capability. For complete citation see footnote 11.

U.S. Congress. House. Committee on Agriculture. "Rural Development Act of 1972 (Administration and Expenditures)." Hearings before the Subcommittee on Family Farms and Rural Development of the Committee on Agriculture, House of Representatives, 94th Cong., 1st sess. June 16 and 19, and July 25, 1975. Washington. U.S. Government Printing Office, 1975. 387 pages. (Serial No. 94-8.)

U.S. Congress. Senate. Committee on Agriculture and Forestry. "Implementation of the Rural Development Act." Hearings before the Subcommittee on Rural Development of the Committee on Agriculture and Forestry, U.S. Senate. 94th Cong., 1st sess. Pt. 4. Jan. 22 and Mar. 6, 1975. Washington. U.S. Government Printing Office, 1975. 440 pages.

Four main issues concerning the guaranteed loan programs have been identified from these sources:

1. Develop provisions so that guaranteed loans would be eligible for sale to third-party investors, including secondary market facilities.

In hearings on Farmers Home Administration Management Capability, ABA, IBAA, and FmHA representatives indicated that regulations proposed August 15, 1975, and implemented December 11, 1975, making it possible to assign the guaranteed portion of business and industry loans to interested parties represent an important step toward a secondary market facility. U.S. Department of Agriculture (USDA) and private lenders also indicated that this year will be one of testing and refining the facilities.

2. Provision for doubling the maximum allowable size of FmHA guaranteed farm operating and farm ownership loans to $100,000 and $200,000 respectively in order to better meet farmers' credit needs.

Testimony before the Agriculture Committees, cited above, and the House Appropriations Committee, Subcommittee on Agriculture, indicated that the USDA would be willing to consider raising lending limits, provided interest rates were subject to agreement between borrower and lender rather than subject to a legislated interest rate ceiling which results in an interest rate subsidy under current market conditions. The USDA sent legislative recommendations to Congress August 29, 1975, and following the oversight hearings on Farmers Home Administration Management Capability, legislation was introduced by Mr. Bellmon (S. 3114, March 10, 1976), to raise the maximum loan amounts on certain programs, to revise the interest rate for certain loans, and for certain other purposes.[14]

3. Provision for changes in the guarantee loan programs' reserve guidelines from a 100 percent appropriated dollar reserve provision against outstanding loans to a fractional reserve basis.

A second reason given by the USDA at oversight hearings for not extending the guaranteed loan program for farm programs was the fact of the 100-percent reserve requirements. It was suggested that this was a matter that Agriculture Committee members should take up with the Committee on Appropriations.

4. Finally, there has been concern about the lack of administrative ability within FmHA to handle guaranteed loans. The General Accounting Office study indicates that most of the FmHA employees involved in the process have had little or no experience or education to aid them in handling guaranteed farm and business and industry loans. Bankers indicated that the administrative process that the FmHA must follow for each loan is complicated and time consuming. Bankers

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[13] U.S. General Accounting Office. "Personnel Management Improvements Initiated or Needed to Help Farmers Home Administration Meet Its Expanded Mission: Report of the Comptroller General of the United States." [Washington] 1975. 97 pages. (B-114873, Sept. 10, 1975.)

[14] The legislation proposed by the U.S. Department of Agriculture is reprinted in the House Appropriations Committee hearings: "Agriculture and Related Agencies Appropriations for 1977." Part 4. p. 775. For complete citation see footnote 9.

who have participated in the credit programs complain of "delay" and "redtape."

In testimony, FmHA indicated that it is attempting through its new management system to improve training FmHA employees in handling guaranteed farm and business and industry loans. They are also making attempts to inform lending institutions about program mechanics. For example, in the hearings, a FmHA spokesman outlined a number of provisions FmHA had made to explain the new regulations concerning assignment of guaranteed business and industry loans to third-party investors both to staff and lenders. Earlier FmHA cooperated with the American Bankers Association in preparing a lending guide and recently it has completed a series of articles with the Independent Bankers Association on the subject.

C. Evaluation of business and industry loans

While the business and industry loan program has been in force only a short time and thus has not allowed for detailed analysis, some of the information developed to date is outlined below by way of a general description of the way the program is evolving. Most of this information is taken from material supplied at the hearings on Farmers Home Administration Management Capability and in reply to written questions sent to the U.S. Department of Agriculture by committee members. Department spokesmen provided information on a wide range of issues concerning the business and industrial loan program, including statistical data concerning the types and sizes of insured and guaranteed loans to date, the industry classification of businesses receiving loans, some estimates concerning the number of jobs created or saved and the cost per job, and information concerning policy on geographical distribution of loans, criteria used in acting on applications, and coordination with the Economic Development Administration (EDA) and the Small Business Administration (SBA).

In general, FmHA indicated that business and industry loans are creating new jobs and saving other existing jobs in rural areas. They are funneling more money into rural development not only because local financial institutions often lack resources to provide adequate financing for rural development but because in other instances, local banks may make larger loans when supported by Government guarantees, and urban banks are actively participating in guaranteed loan programs.

Some of the major facts brought out by the agency at the hearings about the program are the following:

1. *Types and sizes of loans.*—From program inception through October 31, 1975, 1,017 loans had been made ranging in size from 274 under $100,000 to 6 over $10 million. By industry classification, they broke down:

	Number	Percent of total
Agriculture, forestry, and fishing	60	5.9
Mining	13	1.3
Construction	53	5.2
Manufacturing	387	38.1
Transportation communications, electric gas, and sanitary services	33	3.2
Wholesale trade	89	8.8
Retail trade	163	16.0
Finance, insurance, and real estate	37	3.6
Services	178	17.5
Public administration	1	0.1
Nonclassifiable establishments	3	[1] 0.3

[1] FmHA management capability, p. 268.

2. *Geographic distribution of loans.*—Funds are allocated among the States under a formula that takes into consideration the number of rural residents and income level in relation to the national level. No special provisions are made for any geographic section in the country.[15]

3. *Loan priorities.*—(1) Projects which will save existing jobs; (2) Projects for expansion of existing industries—with proven management, product, and market; (3) Projects to create new plants on the basis of the most jobs per dollar; and (4) Those which will provide little, if any, employment except for the entrepreneur.[16]

4. PROGRAM FUNDING

[In millions]

	Authorized	Obligated
Fiscal year:		
1974	$200	$200
1975	350	350
1976	350	[1] 136
1977	350	

[1] As of Jan. 16, 1976.

5. *Relation of demand for loans to supply of funds.*—At the time of the hearings, FmHA indicated that it had pre-applications for about 1,100 loans totaling $1.2 billion. FmHA experience indicates that they will get about 30 percent good opportunities to make loans out of that. This amounts to about $350 million a year against the present backlog of applications on hand and being reviewed. In other words, by the time the review process is completed, FmHA estimates that it can act favorably on about 30 to 35 percent of loan requests.[17]

6. *Jobs saved.*—At the FmHA management capability hearings, FmHA indicated that the first year of the business and industry guaranteed loan program, fiscal year 1974, was a short year. Records show that year business and industry loans affected 19,210 jobs. Estimates given for fiscal 1975 were 29,777, and to date through January 30, 1976, 17,201. This is a total of 66,188 jobs through January 1976. The average cost per job was $10,400 in fiscal year 1974, $11,750 in fiscal year 1975, $7,300 in fiscal year 1976 through January 9, and from program inception through January 1976, $10,100.[18]

It should be noted, however, that in the third annual rural development goals report, published since the hearings, it is indicated that employment impact formulas are currently being evaluated by FmHA and may be revised. For this reason, the goals report does not include statistics on jobs created by FmHA programs.[19]

7. *Coordination with the Economic Development Administration, Small Business Administration.*—FmHA indicates it works closely both with EDA and SBA since there is some duplication of lending programs among the three agencies. FmHA reports it has jointly funded several projects with either SBA or EDA. A memorandum agreement with SBA provides appropriate guidance to the field staff

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[15] Ibid., p. 404.
[16] Ibid.
[17] Ibid., p. 292.
[18] Ibid., p. 297–298.
[19] Rural Development Goals, Third Annual Report of the Secretary of Agriculture, p. 38.

of both the agencies and the public. A copy of this agreement, which appeared in the Federal Register December 11, 1975, is made a part of loan regulations. FmHA feels the agreement is working.[20]

8. *FmHA goals this year.*—According to FmHA, its goals in connection with the business and industry program for this year include: (1) Working with lenders, investors, and other appropriate parties to perfect the "secondary market approach" for loans described earlier; (2) improving the servicing of loans both by simplifying procedures and moving some additional loan authority to the State directors' levels; and (3) improving the early warning system "to provide for early identification of potential problem loans and hold guarantee losses to a practical minimum." [21]

SOME CONCLUDING COMMENTS

Looking at the programs of rural development, it should be recognized that most of the emphasis has been on credit and Government assistance to commercial farmers. The interest in rural development as outlined in the Rural Development Act of 1972 is relatively new. This leads to the following observations:

1. First, as pointed out in this paper, the present act is basically a compromise between the executive and legislative branches and it would be desirable that the agreement between the two become stronger. Implementation of the Rural Development Act of 1972 appears to imply that the administration and the Congress should both direct their attention to establishing goals for rural development, difficult as this may be, if we are going to be able to talk about rural development in quantifiable and measurable terms.

2. Second, it is important to emphasize once again that any rural development program must take into account the role of the private sector, State and local government, and the Federal Government. While the second part of this paper has discussed the industrialization provisions of the Rural Development Act involving FmHA and private lending institutions, it must be remembered that rural development involves a much wider range of activities than suggested there. If rural development activities are to be encouraged, there must be cooperation among Government, private institutions, individuals, country banks and other financial institutions, and community endeavors.

Fortunately, from the standpoint of financing rural development, there are some indications that the Federal financial regulatory agencies and private lending institutions are showing increased interest in the field. Both the agricultural section of the American Bankers Association and the appropriate representatives of the Independent Bankers Association of America are endeavoring to call the attention of their members not only to ways in which they can utilize funds deriving from Farmers Home Administration but about financing rural development generally.[22] Some of the Federal financial regulatory agencies are also looking at the problems of how they can better assist financing of rural development or related activities. For example, the Federal Home Loan Bank Board issued regulations in February 1976 exempting savings and loan associations applying to maintain branch offices or mobile facilities in certain rural areas from the limitation that the branch or facility not be located more than 100 miles from the applicant's home office.[23]

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[20] FmHA Management Capability, p. 269.
[21] Ibid.

In June 1976 the Federal Reserve proposed liberalizing requirements for seasonal borrowing by member banks from the Federal Reserve. The announced purpose "is to help banks, particularly smaller banks, that are subject to significant seasonal loan demand or deposit fluctuations, to meet the financial needs of their communities."[24]

It has been previously noted that the Farmers Home Administration is working in cooperation with the Small Business Administration and the Economic Development Administration in lending programs. The Farm Credit Administration is also expanding its own loan programs beyond its traditional areas as a result of the broadening provisions included in the Farm Credit Act of 1971.

3. Finally, it should be recognized that rural development financing is not only a matter of maximizing credit, investment, and equity resources for achieving economic growth on an aggregate level but also takes into account other factors to create the desired social fabric. Thus, legislative and regulatory actions must take into account not only overall economic effects but social concerns inherent in rural development. The importance of this issue is suggested by the fact that rural development deals both with the long-range future of national patterns of population distribution and with American lifestyles.

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[22] Two recent examples of commercial bank interest in rural development are:

(1) American Bankers Association. "Agricultural Lending: Sources of Funds." Washington, D.C. 1976. 34 pp. This booklet written for agricultural bankers describes the primary sources of agricultural credit in pts. I and II and in pt. III provides information on organizations and loan programs that are closely associated with lending in rural communities. It also includes a bibliography of standard sources which should be of particular interest to commercial banks interested in rural development.

(2) The Independent Banker. August 1976. This issue of the Independent Bankers Association of America's monthly magazine includes the third part of a series of articles by Joseph R. Hanson, Deputy Administrator for program operations of FmHA, on FmHA programs for small-town and rural bankers, an article on cooperation between rural banks and the Farm Credit System, and another on the IBAA's position on improving the availability of credit in rural and suburban communities for those attempting to establish family farms and small businesses.

[23] The Federal Home Loan Bank Board regulations are described in the article: Rossman, Laura. "FHLBB Lifts 100-Mile Limit for Rural Savings and Loans." American Banker. Friday, Feb. 20, 1976, p. 1.

[24] This proposal is set forth in a Federal Reserve press release dated June 23, 1976 and is described in the article: Hutnyan, Joseph D. "Fed Would Ease Window Borrowing for Banks with Seasonal Loan Demands." American Banker. Thursday, June 24, 1976, p. 1.

FINANCING RURAL DEVELOPMENT: A SURVEY OF RECENT RESEARCH FINDINGS AND INSTITUTIONAL CHANGES[1]

In January 1977, a number of university, Government and related organizations interested in nonmetropolitan community services research sponsored a conference at Ohio State University.[2] Several conference papers addressed the problems of financing community services in nonmetropolitan areas.

CONFERENCE RESEARCH FINDINGS

Professor Stocker of Ohio State University found that per capita local government expenditures declined as the population size groups declined from over 250,000 to 10,000 to 24,999. But counties with less than 10,000 population showed higher per capita spending (in 1970) than counties with 10,000 to 50,000. In highway spending the smallest counties spent almost twice as much per capita as the largest. Welfare expenditure showed exactly the opposite pattern. Education expenditures, the largest single expenditure category, were higher in the small population counties than in counties with 10,000 to 50,000, but lower than in the counties with over 50,000.

Direct general expenditures of local governments for all functions other than education in 1972 were 37 percent lower per capita in the most rural counties than for all counties combined. Average salaries in the most rural counties were 33 percent below the all-county level.

Professor Stocker concludes "The number of people involved in delivering public services is roughly the same [in the most rural counties] as for all other local areas (slightly greater in education, slightly less in all other functions combined), but these workers are paid significantly less than their urban counterparts."[3]

Utilizing data from the 1970 census, Professor Stocker concludes that per capita incomes are approximately 20 percent lower in rural than in urban areas and in that sense, the fiscal resources of rural areas are 20 percent less than those available in the urban areas. A tabulation of effective property tax rates in Ohio counties in 1973 shows that the 21 counties with populations of less than 30,000 had substantially lower effective rates than the 22 counties with populations greater than 100,000. From these and other data Stocker concludes, "It would appear that the resources of rural areas and small towns are generally adequate to support existing or expanded public services should the citizens desire, without getting out of line with fiscal burdens borne by their cousins in the city."[4]

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[1] By Walter W. Wilcox, Consultant, Environment and Natural Resources Policy Division.

[2] The sponsoring organizations were the Economic Development Division, Economic Research Service, U.S. Dept. of Agriculture; Farm Foundation; North Central Regional Center for Rural Development, and North East Regional Center for Rural Development. The papers presented at the conference, were published as a committee print by the Committee on Agriculture, Nutrition, and Forestry, U.S. Senate, July 12, 1977.

[3] Committee print, pp. 33–34.

Professor Hitzhusen also of Ohio State University, discussed nontax financing and support for community services. He found that State and local collection of user charges has been growing relative to total tax revenues. User charge revenues collected by local governments in 1972 came predominately from hospitals, education, sewerage, housing and urban renewal and air transportation. In 1971–72 these user charges were equal to 24 percent of the general revenues of the local governments.

Professor Hitzusen finds that the formulas used in Federal revenue sharing do not take account of user charges and most forms of nontax revenues. Largely because of this, county, township and smaller municipal governments in Ohio have not fared as well as larger municipalities in Federal revenue sharing allocations. Per capita allocations of Federal revenue sharing funds to cities in Ohio, 1972–76 were approximately double the per capita allocations to villages and triple the allocations to townships and counties.

John E. Peterson, director, Center for Policy Research and Analysis, National Governors Conference in Washington discussed what might be done to improve the position of small units of government when they wish to issue bonds to finance community facilities. He reviewed the major types of State and Federal assistance programs aimed at helping small local government borrowers. He found most States provide assistance.

Several States, including Vermont, Maine and New York, have passed legislation establishing State authorities to package bond issues of small- and medium-size communities for sale on the open market. The Vermont Municipal Bond Bank was created in 1970, and the Maine Municipal Bond Bank in 1972, to reduce the transaction costs and interest rates of bond financing by consolidating smaller issues, pooling risks and spreading the fixed costs of bond counsel, bond credit rating, printing and underwriting. The interest savings have amounted to about one-half of 1 percentage point on the average.[5]

North Carolina has taken a different approach, in which the State actually conducts the sale of local bond issues. This procedure combines State technical assistance with approval of issues and supervision of all aspects of the debt issuance process. Yet another tack is taken by Minnesota, which guarantees local bond issues for a fee amounting to 2.5 percent of principal.

Federal assistance to small governmental units typically takes the form of loans or loan guarantees for particular programs. The Economic Development Administration (EDA) and the Farmers Home Administration (FmHA) both make loans to small governmental units for water and sewer systems, harbor improvement, terminals, roads, and industrial parks. These programs have been growing modestly in recent years.

Prof. Clara Penniman of the University of Wisconsin reviewed 70 years of tax-sharing experience in Wisconsin. Initially, the shared taxes (State utility, corporate, and personal income) were viewed largely as replacements for no longer available local taxes.

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[4] Ibid. p. 36.

[5] Bivens, W. E., "State Rural Development Strategies, State-Federal Responses to Total Problems," unpublished report prepared for the Council of State Planning Agencies, 1977, p. 92.

The sharing formulas adopted emphasized tax origin which exaggerated the wealth and income differences of the local government recipients.

But once established, it was difficult to change the formulas. It was 60 years before the legislature reduced the sharing advantage of the wealthier communities. Reviewing property taxes in the metropolitan and nonmetropolitan areas of Wisconsin in the 1970's, Professor Penniman concludes "* * * nonmetropolitan villages in Wisconsin have gained more from Federal general revenue sharing and the State's shared tax and aid changes than metropolitan areas."[6]

Unlike the situation in Ohio reported by Professor Hitzhusen, the generally lower per capita income in the more rural Wisconsin counties together with high tax effort, resulted in higher per capita allocations under the general revenue sharing than in metropolitan counties.

RURAL COMMERCIAL BANKS

In January 1970 the Board of Governors of the Federal Reserve System appointed a special committee to study the agricultural credit problems of commercial banks. The committee assembled a staff, and commissioned a number of research papers.

These papers together with the recommendations of the committee were published by the Board in 1975.[7]

The committee proposed that the Federal Reserve System act to improve the ability of smaller banks to obtain nonlocal funds through: (1) Vigorous promotion and efficient administration of the new seasonal borrowing privilege, plus implementation of a basic borrowing privilege for small banks and (2) initiation of efforts to establish or improve mechanisms for marketing of negotiable instruments issues by small banks, including (3) improvement of the ability of these banks to originate and market finance acceptances. The committee further believes that the ability of smaller banks to utilize their resources effectively in local lending would be enhanced through (4) revision of correspondent banking practices to reduce the proportion of funds absorbed by correspondent balances.

Although no substantial changes in banking practices can be attributed to the committee report, loans of insured commercial banks in nonmetro areas have increased more than the bank loans in the urban areas since 1971. This is not surprising since between 1970 and 1977 population increased by 8 percent and nonfarm employment increased by 27 percent in nonmetro counties, while population increased by 4.7 percent and employment increased only 12 percent in metro counties.[8]

Nonmetro bank assets also have grown more than metro bank assets since 1971. In the nonmetro areas in all States except Georgia, Indiana,

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[6] Ibid, p. 109.

[7] The report is entitled "Improved Fund Availability in Rural Banks."

[8] Rural America in the 1970's, appendix attached to statement of Alex P. Mercure, Assistant Secretary of Agriculture before the subcommittee on the city, House Committee on Banking, Finance, and Urban Affairs, May 16, 1978.

Minnesota, North Carolina, Oklahoma, and South Carolina farm loans were a smaller proportion of total loans in 1977 than in 1971.[9]

For approximately two-thirds of the nonmetro banks the proportion of commercial and industrial loans to total loans was also smaller in 1977 than in 1971. Although the decline in commercial and industrial loans as a percentage of total loans was small in most cases, it appears that consumer and housing loans have increased in relative importance in recent years.[10]

FARM CREDIT ADMINISTRATION NONFARM LOANS

The Federal land banks, the production credit associations and the bank for cooperations, all supervised by the Farm Credit Administration, are privately owned cooperative credit institutions engaged primarily in extending credit to farmers, ranchers, and farmer's cooperatives.

As of January 1, 1978 these institutions accounted for about 30 percent of the credit extended to farmers. In recent years both the Federal land banks and the production credit associations have been authorized to make loans to farm related businesses. A farm related business is one which furnishes to farmers, growers, or ranchers custom type services performed on the farm, such as custom fertilizer applications and aerial sprayers. Thus far, relatively few such loans have been made. During the 12-month period ending August 1978, information supplied by the Farm Credit Administration indicates farm-related loans made by these institutions totaled less than $1 million.

The Federal land banks, also have been authorized to make housing loans to rural residents. Each bank is limited in rural home lending to 15 percent of its total loan volume outstanding. A rural resident is one who lives in the open country or in a town where the population does not exceed 2,500.

In the 12-month period ending in August 1973, Federal land banks loaned $56 million for rural housing. Rural housing loans have increased substantially in the past 5 years, however, accounting for $228 million, or 3.9 percent of the total credit extended by the banks in the 12-month period ending in August 1978.[11]

STATE FINANCIAL SUPPORT [12]

Direct State financial support for rural economic development most often takes the form of industrialized aid programs, aimed at promoting the location of industrial plant and equipment within the State. The main source of public funding for industrial land, buildings, and equipment has been industrial revenue bonding at the local level. However, a number of States have established direct loan and loan guarantee programs as well as their own industrial revenue bond programs. For example, Michigan's Job Development Authority Act of 1975 allows the State to make loans, guarantee loans, and issue industrial development revenue bonds to finance industrial facilities.

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[9] Information from a special tabulation supplied by Emanual Melicar, economist, the Federal Reserve Board.

[10] Ibid.

[11] 45th Annual Report of the Farm Credit Administration and the Cooperative Farm Credit System.

[12] This section is adapted from Biven, op. cit., pp. 90–96.

Industrial development authorities are now operational in 22 States. The finance authorities generally loan money to local industrial development corporations in amounts up to half of the cost of an industrial facility project, and secure their loans through second mortgages on the developed facilities.

An alternative approach, initiated in the New England States, is for the State authority to guarantee the repayment of industrial construction loans made by nonprofit local industrial development corporations or commercial banks.

A more common approach is State funding of development-related public works projects, which is utilized as a more indirect inducement for industrial location in 31 States. All States provide some form of tax incentive for industry, although only 18 exempt industries from corporate taxes, only 15 allow accelerated depreciation of industrial equipment, and only 9 provide excise tax exemption. More usual is exemption of raw materials from inventory taxes, in 39 States, and exemption of new machinery from sales taxes, in 30 States. Yet State and local tax incentives tend to provide windfalls to large, well-established firms and have little meaning for new small companies that may offer the greatest potential for rural economic development.

One of the newest and most innovative State development finance institutions is the Massachusetts Community Development Finance Corporation (CDFC), which was set up to address the capital needs of depressed areas. Eligible users are community groups from blighted or economically substandard areas with populations of less than 115,000 and average household income levels at least 15 percent below that of the Boston SMSA figure in the 1970 census. Eligible projects must provide jobs which pay 1.5 times the minimum wage, offer adequate fringe benefits, including health insurance, and are not seasonal or part time. The employment must be for the residents of the target area.

Another innovation is the Connecticut Product Development Corp., the only State development finance institution of its kind in the country. It was established in 1972 to stimulate new product development by providing risk capital to bridge the gap between innovation and production, manufacture and sales.

Legal challenges to its constitutionality, however, prevented investment activity until August 1974. The CPDC negotiates joint venture agreements to share in the cost, usually 50–50, of development of a technique or production of a product in return for royalty fees of at least 4 or 5 percent of sales. The benefits of increased employment and tax revenues also must remain in the State.

Three other States—Massachusetts, New York, and Pennsylvania—have established science and technology processes and products, while another 30 States have programs to promote research and development.

Another approach to State development finance is represented by the Bank of North Dakota, the only State-owned commercial bank. Established in 1919 as a countermeasure to out-of-State control of financial and agricultural markets, it is managed and controlled by the State Industrial Commission.

It acts as a central banker for small commercial banks in the State, serving as clearinghouse for their intrastate transactions, and itself holds nearly 10 percent of all commercial bank deposits in the State. It is prohibited from lending directly to commercial businesses and individuals, except for farm loans and federally insured or guaranteed loans. However, it may lend directly to other financial institutions and participate with other commercial banks, savings and loan associations, and credit unions in loan pools and loan packages to businesses and individuals.

The Bank of North Dakota has established secondary financial marketing operations for municipal industrial revenue bonds and other political subdivision debt issuances, VA and FHA guaranteed home loans, guaranteed portions of SBA loans, and federally insured student loans. It participates with the FmHA in land acquisition loans on a 20-year basis to assist small farmers to expand. As a depository of public funds with above normal liquidity requirements, the bank is restricted in its industrial development investment activities, however. It can make first mortgage loans under the State's $100 million pool only to companies that have been in business for at least 5 years and have shown an operating profit for at least 3 consecutive years immediately prior to the loan application.

In the absence of State-owned banks, statewide business development corporations have been created under State enabling legislation as by far the most widely utilized mechanism for involving commercial banking in development finance. Generally patterned after the first one, established in Maine in 1949, they are capitalized by sale of common stock to railroads, insurance companies, utilities, and, in some States, commercial and savings banks. Created by charters under legislation that allows commercial banks, savings and loan associations, insurance companies, and the like to pledge and make insecured loans to them, business development companies maintain a revolving loan fund which serves to pool the risk on loans to small, young, growing firms that do not meet the eligibility requirements of conventional lenders for long-term financing. Although authorizing legislation is on the books in 43 States, only 27 have operating business-credit development corporations.

Most of the business development corporation loan pools have relatively low ceilings on the size of loans. For example, the Colorado Business Development Corp's reserve pool of lendable funds is about $1.5 million and the maximum loan is $300,000, with an interest rate of 2.5 to 3 percent above the New York prime rate. Several others have even lower loan ceilings and some charge higher interest rates.

State industrial development authorities are also fairly widespread mechanisms, but they operate in several different modes. The New York Job Development Authority, created in 1962, and several others issue general obligation bonds to finance their loans. New Hampshire initiated this approach in 1955 and was followed by States such as Alaska, Maryland, and Oklahoma. The Pennsylvania Industrial Development Authority, created in 1956, has relied upon direct appropriations of funds rather than debt finance, serving as patternmaker in the field. Relatively poor States generally have to rely on debt finance, in hopes that the effort will pay off in increased tax revenues to help retire the bonds. More affluent States are able to finance their development assistance loan program from current revenues, assuming that once the revolving loan pool is well established direct appropriations can be minimized.

FEDERAL DEVELOPMENT OUTLAYS FOR RURAL AREAS

Federally outlays for community and industrial development for fiscal 1976 are reported in Rural Development Research Report No. 1.[13] Federal development outlays in fiscal 1976 totaled nearly $30 billion. On a per capita basis rural areas fared better than the urban areas. In the totally rural counties, those not adjacent to metro counties, Federal outlays for community and industrial development were $221 per capita. In the metro counties Federal outlays per capita were $132. In all nonmetro counties outlays were $153 per capita.

The Federal community and industrial development outlays were for community development functions (45 percent), transportation development (32 percent), environmental protection (15 percent), and industrial development (8 percent), most of these Federal outlays were in the form of loans. Federal grants-in-aid for these purposes were $33 per capita in the metro areas and $31 per capita in the nonmetro counties.

FARMERS HOME ADMINISTRATION PROGRAMS

The Farmers Home Administration, established by the Farmers Home Administration Act of 1946, and given added responsibilities by the Rural Development Act of 1972, provides most of the Government credit available in rural areas. Two other Federal agencies which also make loans in rural areas are the Small Business Administration and the Economic Development Administration. Recent developments in each of these three agency programs will be reviewed.

In 1978 Secretary Bergland combined the Rural Development Service with the Farmers Home Administration and asked Congress to change the name of the Farmers Home Administration to the Farm and Rural Development Administration. As a part of its expanding role in rural development the Farmers Home Administration, which in the past has functioned entirely through State and county offices, is opening district offices in most States. The district offices will process rural industrial and community facility loans and will be located adjacent to State multicounty planning offices to facilitate better cooperation with the State and local governments in planning rural development investments. The FmHA field staff in 1978 is receiving special training to increase their competence in working with State and local personnel in developing rural investment priorities. It is expected to provide an integrating function for all Federal development programs in rural areas.

In his presentation to the Subcommittee on Agriculture, Rural Development and Related Agencies of the House Appropriations Committee, March 1, 1978, Administrator Cavanaugh reported that about $8½ billion a year now flows through FmHA channels into rural America, serving a wide variety of rural development needs.[14]

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[13] Published by the Economics, Statistics, and Cooperatives Services, USDA, August 1978.

[14] Hearings, Subcommittee on Agriculture, Rural Development and Related Agencies House Committee on Appropriations, pt. 5, p. 241.

As of October 1, 1977 FmHA was servicing 1,060,000 individual borrowers with a principal indebtedness of $22.5 billion.

PROVISIONS OF AGRICULTURAL CREDIT ACT OF 1978

On August 4, 1978, President Carter approved the Agricultural Credit Act of 1978 which provides an economic emergency loan program for farmers, increases the funds available to the Farmers Home Administration and expands its authority to make rural grants and loans.

The 1978 act amended the Consolidated Farm and Rural Development Act in a number of respects. It authorizes farm ownership and operating loans to farm family partnerships and cooperatives as well as individual operators. It authorizes loans for recreational and pollution abatement purposes to farmowners and tenants and increases the maximum amount of individual loans.

It increases the annual authorization for water and waste disposal grants from $300 million to $500 million and increases the maximum amount of a grant from 50 to 75 percent of the total cost of the facility. It authorizes additional loans for power transmission lines. It removes restrictions regarding rural industrial assistance loans where the employment will not be increased by more than 50 employees.

The 1978 act makes a number of changes in the interest rates that may be charged on direct, insured and guaranteed loans. These changes have the effect of removing the interest ceiling on guaranteed loans and reducing the interest subsidies on the direct and insured loans.

Title II of the act authorizes emergency loans for farms operating up to $400,000 for a single borrower. The total of such loans may not exceed $4 billion. Title III of the act extends the Emergency Livestock Credit Act of 1974 until September 30, 1979.

Although the emergency agricultural credit provisions are perhaps the most important features of this act, the several amendments to the Consolidated Farm and Rural Development Act increases the ability of the Farmers Home Administration to make grants and loans for community facilities and rural industry.

FMHA BUDGET AUTHORIZATIONS

FmHA budget authorizations for rural development loans and grants for fiscal years 1977, 1978, and 1979 preliminary are as follows:

[In millions of dollars]

	1977	1978	1979 preliminary
Water and waste disposal loans	600.0	750.0	900.0
Community facility loans	200.0	250.0	250.0
Business and industrial loans	350.0	1,000.0	1,100.0
Water and sewer grants[1]	200.0	250.0	282.0
Industrial development grants[1]	10.0	10.0	10.0
Fire protection grants	3.5	3.5	3.5

[1] In response to questions raised during the 1979 budget hearings before the House Appropriations Subcommittee, USDA officials reported 1,386 unfunded applications for water and waste disposal grants totaling $472,000,000 and [illegible],000 applications on hand for fire protection grants totaling $15,000,000.

SMALL BUSINESS ADMINISTRATION LOANS

Rural small businesses unable to obtain private financing on reasonable terms and ineligible for financing from other Government agencies may qualify for loans from the Small Business Administration.

SBA makes direct loans of its own funds or immediate participation loans with the local bank participating in the loan. It also guarantees loans made by private institutions. It has two categories of loans to private business, usual small business loans, and economic opportunity loans under the handicapped assistance loan program.

SBA immediate participation loans may not exceed $350,000 to any one borrower. Guaranteed loans may be as large as $500,000. The usual maximum length of time to maturity is 10 years although working capital loans generally are limited to 6 years.

Small Business Administration budgetary loan authorizations for loans primarily to small business, but also to State development companies, for fiscal 1977, 1978, and 1979 preliminary were:

[Dollar amounts in millions]

	1977	1978	1979 preliminary
State development companies	49	86	86
Total	$2,679	$3,161	$3,455

The Small Business Administration does not have specific lending goals or budget authorizations for rural and urban small business loans. Data in appendix table 3 of the Rural Development Research Report No. 1 mentioned earlier, indicate that, in fiscal year 1976, small businesses in metropolitan counties received 62 percent of SBA loans and those in nonmetropolitan counties received 38 percent of the loans. In view of the more rapid growth of the nonmetro areas in recent years it is probable that they will receive more than 38 percent of the SBA loans in fiscal year 1979.

ECONOMIC DEVELOPMENT ADMINISTRATION PROGRAMS

A third Federal agency with authority and funds to make grants, loans and loan guarantees in rural areas is the Economic Development Administration. EDA programs are carried out under the basic authority of the Public Works and Economic Development Act of 1965 as amended. The first programs under this act were limited to nonurban areas. In recent years, however, almost half of the EDA funds have been expended on projects in the inner cities. In 1976 nonmetropolitan counties received 53 percent of EDA outlays for community and industrial development.[15]

EDA provides economic adjustment assistance to firms and communities, including Indian tribes, adversely impacted by international trade and other economic development, which create actual, or threaten long-term unemployment or low income. Most of the economic assistance takes the form of grants.

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[15] Rural Development Research Report No. 1, appendix table 3, p. 46

EDA budgetary authorizations for fiscal years 1977, 1978, and 1979 preliminary were:

Total direct obligations:	*Millions*
1977	$300
1978	382
1979 (preliminary)	626

PROPOSAL FOR NATIONAL RURAL DEVELOPMENT BANK

Senator Leahy of Vermont is of the opinion that Office of Management and Budget ceilings concurred in by the Congress, unduly limit the insured and guaranteed loans that may be made each fiscal year by the Farmers Home Administration, the Small Business Administration, and the Economic Development Administration.

In order to remedy this situation and make more credit available for rural development, Senator Leahy, on October 6, 1978, introduced a bill (S. 3552) to create a national rural development bank.[16]

The proposed national rural development bank would serve as a basic source of financial assistance to lending institutions that have purchased, refinanced, discounted, or rediscounted nonfarm rural development loans made by local banks and other local financial institutions. The bill would authorize the appropriation of not more than $200 million annually over the next 10 years for the purchase of capital stock in the bank by the Secretary of the Treasury.

The key features of the proposed National Rural Development Bank would be:

> It would be owned and controlled by the independent rural investment institutions themselves.
>
> It would work with correspondent banks or with rural banks themselves to increase the liquidity and security of rural development loans.
>
> It would join with local banks and other investors to make joint-venture equity investments in rural development projects on a limited basis.
>
> It would require the purchase of bank stock by borrowers who are rural development project sponsors and joint venture co-sponsors.

Since the bill was introduced very late in the congressional session, no action was taken before adjournment. Thus far, the merits such a rural development bank have not been subjected to a critical evaluation and it is too early to determine the extent of the support for a national rural development bank.

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[16] Congressional Record, Oct. 6, 1978, P.S. 17277-8.

ENVIRONMENTAL PROTECTION AND RURAL DEVELOPMENT[1]

INTRODUCTION

"Development," particularly in the context of rural development, nearly always involves environmental effects. The definition of "rural development" in the Rural Development Act of 1972 includes "the planning, development, conservation, and use of land, water and other natural resources of rural areas to maintain or enhance the quality of the environment for people and business in rural areas * * *" The execution of programs to achieve most goals in rural development—such as employment and income objectives, community facilities, housing, education, and population distribution—will always entail, to some degree, environmental effects and consequences.

As new trends in national migration patterns reveal significant movements into rural areas, where the population is growing more rapidly than in most large cities, it becomes particularly important to deal sensitively with these environmental consequences. If environmental damage is not avoided in the process of developing our rural areas, we stand to destroy the very qualities which those migrants to rural areas—along with the existing inhabitants—find so attractive.

As Senator Herman Talmadge, chairman of the Senate Agriculture Committee, stated in his explanation of Public Law 92-419, the Rural Development Act of 1972,

> Environmentally speaking * * * we must not make the same mistake in developing rural America that we did in building some of our great cities * * * Rural America now has, very largely, clean water and clean air. We want to keep it that way.

In his remarks on August 31, 1972, in the committee print entitled, "Explanation of the Rural Development Act of 1972," Senator Talmadge enumerated the ways in which the rural environment was affected—and intended to be enhanced—by that legislation:

> The Rural Development Act of 1972, the bill before you now, provides specific safeguards and actions to make it possible to build a prosperous and attractive rural America—a development effort that will preserve and enhance rather than destroy the unique charm and way of life that has always characterized small towns and the countryside and that led President Thomas Jefferson to look upon small town and country life as ideal, artistically, culturally, and politically.

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[1] By Susan R. Abbasi, analyst, Environment and Natural Resources Policy Division.

> * * * The legislative history of the measure before the Senate Committee on Agriculture and Forestry clearly indicates that it is our intention that no proposed project using loan or grant funds be approved that is not in full compliance with Federal and State antipollution standards and that indeed it is our purpose to provide the investment and equity capital funds and potential income that will enable farmers, rural industry, and rural communities to promote economic growth, develop prosperous economies, and thus be enabled to undertake the sometimes heavy costs of installing antipollution devices and operating methods.
>
> With these measures, we believe that rural America not only should, but can, enhance the quality of its ecological environment while building a stronger economy. We think that this is necessary if rural development is to be truly successful. Thus, we have written these special environmental provisions into the Rural Development Act of 1972.
>
> These measures, if taken alone, would, in themselves, be correctly considered to be a significant rural environmental protection and pollution control bill.

In his description of significant environmental provisions of the act, Senator Talmadge listed these elements, which were part of the final law:

> First. Rural communities of less than 5,500 population, including Indian tribes that now have water supply waste disposal systems, acting as governmental bodies, that for some unforeseen and unanticipated reason or occurrence are now no longer adequate to the needs of the community, are given, in section 112, the highest priority for approval of water and waste disposal system loans and grants.
>
> Second. The authorized appropriations for water and waste disposal planning grants is doubled by section 108.
>
> Third. The bill, in sections 118 and 121, authorizes loans to public bodies and private enterprise firms and persons, and up to $75 million per year in grants for pollution abatement and control in rural areas, in connection with industrial and business development projects. Pollution abatement and control loans may be direct, insured, or guaranteed. Indian tribes are included as eligible along with other public bodies.
>
> Fourth. Water quality management and control and abatement of agriculturally related pollution are added to existing law by titles II and III as purposes of water impoundment costs for which the Secretary may provide Federal cost sharing with local sponsors of small watershed protection—Public Law 566—and resources conservation and development projects under the Bankhead-Jones Act.
>
> Fifth. Federal cost sharing is provided under the REAP—formerly ACP—program for air, water, noise, and other agriculturally related pollution prevention and abatement practices by section 606.
>
> Sixth. Section 605 of the bill inaugurates a major new rural environmental protection program of cost-sharing contracts

> with rural landowners or operators similar to the amended Great Plains conservation program of long term—up to 10 years—contract.
>
> Seventh. Similar environment protection measures are authorized in the long-term conservation contract provided for watershed project areas in title II.
>
> * * * I suggest * * * that the totality of these environmental protection and enhancement measures I have just recited constitute a major environmental measure that is embodied as part and parcel of the Rural Development Act of 1972.

The Agricultural Credit Act of 1978 (Public Law 95-334) amends and augments several of these environmental provisions:

> It revises to $500 million from $300 million the total for grants for water and waste disposal;
>
> It authorizes Federal grants of up to 75 percent for any one water or waste disposal project—up from the previous 50 percent;
>
> It authorizes loans to farmers for the cost of meeting the statutory requirements for abatement and control of waste pollution from agricultural and animal sources.

However, beyond the enactment of these specific programs to address particular environmental problems, there has not been developed an articulated environmental policy or set of goals for environmental protection in rural development efforts generally.

Subsequent reports required by the act on rural development including the goals reports from the Agriculture Department revealed no development of articulated, coordinated environmental goals. Environmental considerations simply have not been mentioned in most discussions of rural development. In the June 1975 report, the USDA gave progress reports on and restated most of the social goals—employment, income, population, housing, and community services but did not mention environmental goals. Yet efforts toward achievement of all of these other objectives involve some degree of environmental consequences.

Environmental concerns continued to be ignored in the 1977 rural development progress report by the Secretary of Agriculture. This lack was acknowledged in its introduction:

> An omission [in previous rural development reports] that has not yet been met is the absence of any statement of rural environmental policy in the reports issued thus far. The Department of Agriculture is concerned about this matter and is currently developing plans for arranging for inclusion in the upcoming Fifth Report, a paper on the subject of rural environmental policy and progress in the context of the dramatic increase in rural population growth and economic development since 1970.[3]

A report by the Agriculture Department was underway at this writing, and is reported to focus on initiatives of the Carter administration in the area of rural development, including a section on policies and initiatives of the Environmental Protection Agency.

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[3] U.S. Department of Agriculture. Rural Development Progress. Fourth Annual Report of the Secretary of Agriculture to the Congress (Pursuant to title VI, sec. 603), of the Rural Development Act of 1972). Washington, D.C. P. 2.

Whatever the benefits of a more clearly articulated environmental framework by the Agriculture Department in coordinating its rural development efforts might potentially be, there are important Federal environmental laws which must be taken into consideration in rural development efforts. Some of these have implications that could affect rural development. These laws are designed to address such problems as degradation of air and water quality in rural areas; loss of prime agricultural land to urbanization; and boomtown effects stemming from new energy development in rural areas.

As a consequence of these laws and issues, some form of land use regulation—which has generally been resisted in rural areas—may be a factor in determining the place and location of significant amounts of new rural development.

In particular, the Federal laws which have most direct impact on rural development programs and efforts include the National Environmental Policy Act of 1969, the air quality legislation, water quality protection laws, and energy impact assistance. Many of these impose some constraints either on the rural development programs of the Federal Government, or on some types of private development, or both.

NATIONAL ENVIRONMENTAL POLICY ACT (NEPA)

The National Environmental Policy Act, signed into law January 1, 1970, is the Federal "umbrella" Environmental Protection Act. It states that it is the Nation's policy to protect and enhance the environment. The law also requires that all major Federal actions must be preceded by an environmental impact statement (EIS) which sets forth all the significant environmental consequences of the actions. Many of the programs designed to promote rural development entail activities for which such an impact statement is required. This does require that the adverse environmental impacts in such development programs be identified—but the preparation of the impact statement alone does not guarantee that the adverse effects identified in it will be avoided. In many cases, agencies have chosen to comply with the procedural requirements of NEPA but not to make a major effort to honor the intent of the substantive sections of the law which declare a general policy of protecting the environment. A statement is prepared, usually after the decisionmaking process is completed, not before it or concurrently, and often its major purpose is merely to go through the motions of complying with the EIS requirement in NEPA, rather than to identify and then avoid real environmental consequences.

However, the EIS process could be more useful, for example in the case of rural development, if it were operating in the context of a policy for rural development that articulated environmental protection goals. The EIS could be used to identify the degree to which the development programs achieved their purposes without violating articulated standards of environmental protection. The fact that the rural development programs are scattered throughout numerous agencies—several bureaus and offices of the Agriculture Department, and the Environmental Protection Agency, as well as the Housing and Urban Development Department, and others—makes it likely that an environmental policy for programs affecting rural development would greatly facilitate the useful implementation of the National Environmental Policy Act.

AIR POLLUTION CONTROL

Rural areas are only rarely the victims of air pollution to the same extent as the Nation's cities. However, the Federal legislation designed to protect the quality of the Nation's air contains a number of provisions of considerable significance to rural development, because they attempt to place certain controls or constraints on land uses and development when attendant increases in air pollution would be involved.

The Air Quality Act of 1967 (Public Law 90–148) established for the first time a national objective to protect and enhance the quality of the Nation's air. However, the most significant Federal air quality law is the Clean Air Act amendments of 1970 (Public Law 91–604), which took the first major steps to define specific standards for air quality which must be met in order to protect public health, property, and the general welfare. It also required specific steps to be taken by State and Federal governments to meet these standards.

In 1977, further Clean Air Act amendments (Public Law 95–95) provided measures of particular importance to rural areas, clarifying requirements to prevent deterioration of air quality in areas where air is cleaner than the required standards. These measures have been the source of controversy—vehemently opposed by development interests as an inherent no-growth policy, but defended on the grounds that they would not prohibit growth, but instead will force implementation of effective air pollution control technology, thus saving rural and less-developed areas from the woes of air pollution now visited on many urban or industrial areas.

The 1970 legislation required the Environmental Protection Agency (EPA) to establish the basic air quality standards. Ambient air quality standards for the six most common and damaging types of pollutants were defined for particulates, sulfur dioxides, carbon monoxide, nitrogen oxides, photochemical oxidants, and hydrocarbons. For each pollutant, two levels of air quality were defined: (1) Primary standards which require control of pollution which keeps it at levels low enough to safeguard public health, which means to prevent health problems caused by pollution; (2) secondary standards, which are more stringent, and define amounts of pollutants allowed to be present while still protecting the public welfare; this includes protection for property, animal health, and vegetation.[3]

The 1970 act contained new source standards, which apply to any new building, powerplant, or any facility or installation. These specify the maximum amount of each specific pollutant that may be emitted by a new stationary source of air pollution, regardless of location or the air quality of the surrounding area.

States were directed to prepare implementation plans which detail the actions they will take to achieve and maintain both new source and ambient air quality standards. Such plans have been submitted by all the States (although revisions may be required by the 1977 amendments discussed below). In particular, section 110 of the act specifies the requirements which must be in the State plans, and includes such measures "as may be necessary to insure attainment and maintenance of * * * primary and secondary standards, including, but not limited to, land use and transportation controls." In addition, this section specifies that the preconstruction review process for new pollution sources must include authority to bar construction when the State determines that a new source would prevent attainment or maintenance of a national ambient air quality primary or secondary standard. Thus the act authorizes general application of land use controls for the achievement of air quality standards. Such controls have obvious potential for influencing new development in rural areas.

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[3] For further discussion of air quality standards, see Grimes, Maria. "Air Quality Standards: Nonattainment." Library of Congress, Washington, D.C., issue brief IB 78069.

This review process—and possible resulting constraints on indirect sources in nonmetropolitan areas—includes facilities which would attract 2,000 or more cars to a new site, or would modify an existing site to include an additional 1,000 cars. Such facilities include highways and roads, parking facilities, retail, industrial, and commercial facilities, recreation and sports facilities, airports, offices, apartments, and education facilities.

Prevention of significant deterioration of air quality

The 1977 Clean Air Act amendments clarified a very controversial aspect of the 1970 law: The "prevention of significant deterioration" requirement.[4] The 1970 act had not specifically addressed this issue in unequivocal language, but a Supreme Court decision interpreted the law to mean that State air quality implementation plans must be designed to prevent the deterioration of air quality in areas where it was already better than EPA's primary or secondary standards. The rationale behind the Court ruling was that Congress, in passing the Clean Air Act did not intend that rural air quality should be allowed to be degraded below existing levels—even though the minimum national ambient air quality standards in the 1970 act would not be reached in such areas until the air had deteriorated to some degree.

In response to the Court decree, EPA promulgated final regulations on December 5, 1974, which provide for a threefold classification plan to be put into effect by the States. This classification system was attacked on various grounds by both industry and development interests and environmentalists. Congress debated this issue at length through 1975 and 1976. The 1977 law put into statutory form the requirements on classification of areas in which various levels of pollution would be allowed, and these followed in large part the EPA regulations. Development and industry interests expressed the view that the EPA regulations had constituted a de facto "no growth" policy that would prohibit industrial development, and possibly preclude development of vast amounts of the Nation's energy resources in rural areas. Opposed to this argument was the contention of many States, 16 of which filed amici curiae briefs in the Supreme Court case, that concentrations of air pollutants at or near the secondary standards would produce effects which would seriously threaten recreation, agricultural and other bases of their economies. They argued that insisting on minimum or no degradation of air quality would not prohibit growth, but would be a technology-forcing requirement which would ensure that new pollution sources would incorporate measures to prevent pollution from their inception. A directly related problem is that unless stringent air quality regulations apply in rural areas, industries would be tempted to evade stringent urban air standards by relocating to rural areas, bringing with them the attendant air pollution problems.

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[4] For further discussion of this issue, see Grimes, Maria. "Air Quality: Prevention of Significant Deterioration." Library of Congress, Washington, D.C., issue brief IB [illegible]065.

The 1977 law, then, was the first to include explicit provisions for a policy of preventing significant deterioration of air quality. The controversy associated with this issue had in fact prevented enactment of the law during the 94th Congress. The 1977 law will require changes in the State implementation plans for air quality control, and requires a three-tiered classification system for all areas with air that is cleaner than EPA's standards, with maximum allowable increases set forth for pollutant concentrations of total particulates and sulfur dioxides. These categories are:

> Mandatory class I areas: Those with the cleanest air, in which only very small pollution increments would be permitted. These include all international parks, national memorial parks and wilderness areas over 5,000 acres in size, and national parks exceeding 6,000 acres in size.
>
> Class II areas: These are all other clean air regions initially, with possible redesignation later to either class I or class III, according to prescribed procedures which must incorporate public participation and local government consultation. Moderate pollution increments associated with moderate growth would be permitted in these areas.
>
> Class III areas: These are areas in which the largest increases would be permitted, allowing maximum growth and possible pollution-increments up to secondary standards. Redesignation as class III would be allowed only after hearings, studies, and the concurrence of affected local governments.

Additional strategies for meeting prevention of significant deterioration requirements for the other four controlled pollutants must be proposed by EPA within 2 years. The 1977 law also provides for a National Commission on Air Quality and charged it with studying implementation of the no-significant-deterioration requirements. The National Academy of Sciences is also directed by the law to make a study of these provisions, which will address issues that include the effects of the provisions on employment, energy, the economy, and the relationship of this policy to other national priorities such as economic growth and other social and environmental effects.[5]

In addition to consideration of effects on rural economic development, the effects of air pollution on agriculture is of particular concern.

Mr. T. W. Edminister, Administrator of the Agricultural Research Service in the Department of Agriculture, stated in hearings on the subject:

> Air pollutants caused an estimated $500 million annual loss to agriculture. Plants lose vigor, and growth rate is reduced. Susceptibility to some insects and diseases is increased. Flowering may be reduced, and leaves are injured and lost

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[5] Regulations for the new act's requirements on no significant deterioration were published June 19, 1978 (43 CFR 118: 26380).

> prematurely. Yields of potatoes, green beans, and citrus have been reduced as much as 50 percent. Changes in nutritive value of plants and presence of toxic substances are a concern. The concentration of photochemical oxidants is similar in rural and urban areas in the Atlantic Coastal States from Virginia to Massachusetts. Plants in more humid Eastern States are more susceptible to pollutants than plants grown under more arid conditions as in southern California.

In testimony before the Subcommittee on Environment and Atmosphere of the House Science and Technology Committee, results of field tests in California were reported by University of California researchers. The results verified that crop losses due to air pollution is a serious problem. According to this testimony:

> Fairly accurate measurements in yield reduction have been made in southern California when comparing crops in clean filtered air and ambient polluted atmospheres. As an example the following percent reduction in yield were noted in Riverside in 1974 for the crops listed: Alfalfa, 38; black-eyed beans, 32; lettuce, 42; sweet corn, 72; and radish, 38. When the value of these crops was determined for the Los Angeles basin, and assuming that the above loss rates applied throughout the basin, the loss totaled a little more than $10 million.
>
> In 1972, loss for California agriculture was estimated to be at least $25 million. The minimal national loss was estimated at $123 million in 1969–71 and more recently stated to be several hundred million per year. But, because methods of measurements on loss are still imprecise and dose-response functions at low level exposures need improving, figures on dollar losses to agriculture will only be rough estimates at best.
>
> Comparison was made on annual ring (radial) growth and height growth between equal numbers of two similar age groups of ponderosa pines in the San Bernardino mountains during 1910–40 (unpolluted years) and 1944–74 polluted years). The results showed that merchantable volume of wood produced (after variability from climate was removed) was 20 board feet from 1910–40 and 5 board feet from 1944–74.

Therefore, there now exists some possibility that efforts to develop nonagricultural job and industrial opportunities or to develop energy resources in rural areas may adversely affect important agricultural functions in these areas through causing increased levels of air pollution.

WATER POLLUTION CONTROL

The landmark legislation in the area of water pollution control was the Federal Water Pollution Control Act (FWPCA) amendments of 1972 (Public Law 92-500). This law went significantly beyond previous water pollution control efforts—and provided stringent water quality requirements. Several of these provisions are of particular relevance to rural development efforts.

Nondegradation of high quality waters is one objective of the act, which also specifies a series of goals for when effluents (discharges) from all sources should be reduced to certain levels. For example, by 1983 the goal is to reduce discharges to the level at which the Nation's waters will be capable of supporting fish and wildlife, and will be safely usable for recreation and swimming; by 1985 the goal is to have zero discharges into the Nation's waters.

The act requires that new sources of water pollutants must adopt, generally speaking, the best available demonstrated control technology, processes, and operating methods for control of their effluents. This would apply to any industrial or other development in rural areas.

Land use planning and some degree of regulation is required in the section 208 area wide planning requirements. Every area of every State is to have an approved section 208 plan which sets forth the plans to integrate construction of municipal wastewater treatment facilities, permits for effluent discharges, and management of nonpoint pollution sources (these include runoff from farmland, feedlots or pasture, or construction site runoff) in order to minimize water pollution in that area. However, the land use requirements following from this section 208 planning are not likely to limit actual amounts of development in rural areas—it is more likely to bring about management of some land uses and use of construction techniques which minimize pollution.

The 1972 act had as its main thrust the development of the Environmental Protection Agency's (EPA) programs to control the point sources of pollution—actual facilities that cause pollution. In the 95th Congress, the act was amended by the Clean Water Act of 1977 (Public Law 95–217), which recognized that as point source pollution was brought under control, nonpoint sources pollution becomes a more important problem. The nonpoint sources are generally of major significance in rural areas. The 1977 act accordingly establishes the rural clean water program. The EPA is authorized to work with the Agriculture Department's Soil Conservation Service to develop the program; it requires that irrigated agriculture must now be considered in the area wide section 208 plans. The Soil Conservation Service is authorized to administer a Federal grant program paying 50 percent for best management practices implemented by local governments to control agricultural runoff.

Although $200 million was authorized for appropriation to the Agriculture Department for the grant program in the rural clean water program for fiscal year 1979, and $400 million for fiscal year 1980, no money was appropriated for 1979. And only $32 million was appropriated for EPA's grants for the 208 planning program, out of an authorization of $150 million.

Section 402 of the 1977 act also changed the classification of certain agricultural activities—it changed to "point sources", which are subject to individual permits from EPA, the following activities: Concentrated animal feeding operations such as those involving 1,000 cattle, 10,000 sheep, et cetera; some silvicultural activities, such as gravel washing facilities or log storage.

Thus, Congress focused in 1977 on controlling several sources of water pollution of particular importance to rural areas, and enacted the necessary changes into law. But these changes were not yet recognized in the appropriations process, and so the practical effect will await the funding of the program.

LAND USE ISSUES IN RURAL DEVELOPMENT

Two particularly important issues which are of increasing urgency for rural areas are the protection of prime agricultural land, and rapid development in rural areas related to energy resources development.

Protection of prime agricultural land

Urbanization of prime agricultural land has until recently affected primarily specialty crops which, because of soil and climatic requirements, may be grown only in a few specific areas of the country. If these lands are used for other purposes, the area available for such crops is significantly reduced. However, the general loss of agricultural land to development has become of increasing importance since the energy crisis, population growth and the increasingly important role of the United States as a world food supplier have placed greater demands on food productivity in this country.

During the 95th Congress, the conversion of cropland into other land uses which preempt its use for food production became an issue of some concern to Congress, and to several executive branch agencies. The Soil Conservation Service has estimated that between 1967 and 1975 some 3 million acres of rural land each year was converted into housing subdivisions, water reservoirs, highways, and other nonagricultural uses. About 700,000 acres of each 3 million was cropland, and much of the rest was of the quality which could be converted into productive farm uses if needed.

In the previous two decades, when crop surpluses were common, such losses of prime agricultural land to other uses was of little concern; however, in the 1970's, increasing demands for American food exports and changing weather conditions, which brought down levels of productivity for land under cultivation, ended the chronic food surpluses and introduced new concerns about the protection of the Nation's farmland base.

The major factors leading to this concern are these:

During the 1970's yields per acre have fluctuated widely from year to year, instead of showing the customary steady increases of past years;

Climatologists indicate that we may be entering a period of more variable weather, with potentially adverse effects on agricultural productivity;

Environmental and materials supply problems may have slowing effects on productivity—energy costs and stricter pollution controls may reduce use of fertilizers, pesticides and other productivity enhancement materials.

The issue is subject to some controversy, however, since those who argue for the need to conserve cropland for long term agricultural demands and to protect it from development pressures, are opposed by those who contend that agricultural technology can offset production losses from cropland conversion.

The concern over loss of prime agricultural land has obvious impacts on rural development. Although much of the concern centers on development adjacent to large cities, new trends in migration patterns show that there is significant population movement to nonmetropolitan counties, as well. Efforts to reduce the loss of prime agricultural lands would have some important impacts on development in these rural areas.

While interest at the Federal level has just begun to focus on measures to address the loss of prime agricultural lands, many State and local governments have considered the issue to be a significant problem, and have adopted farmland protection programs. Some programs to purchase development rights and institute favorable tax measures to protect agricultural land are in effect in New York, New Jersey, and Maryland, and are under intense discussion elsewhere. Protection of prime lands is a goal in many of the State land use plans which are prepared under the Federal coastal zone management programs.

Legislation was introduced in the 95th Congress to provide for a Federal role in dealing with these issues and concerns.[6] The Agricultural Land Retention Act, which was reported to the House, but not acted on before the end of the Congress, would establish an Agricultural Land Review Commission to study the agricultural land situation. It would make recommendations to the President and the Congress within 3 years concerning the modifications in Federal, State, and local policies that would be needed to prevent the conversion of agricultural lands to other uses, and for coordination of Federal activities which affect agricultural lands. The bill as introduced would authorize a $50 million annual appropriation for demonstration projects to test techniques aimed at reducing the amount of land removed from food production. This demonstration program was deleted by the House Agriculture Committee in its reported version of the bill.

In addition, Congress passed the Soil and Water Resources Conservation Act 1977, Public Law 95–192, which addressed the farmland conversion issue by calling upon the Agriculture Department, through the Soil and Water Conservation Service, to conduct a continuing appraisal of the Nation's soil, water, and related resources. These assessments are likely to result in an improved information base for defining cropland needs and the current status of problems in availability of agricultural land.

EPA's policy to protect environmentally significant agricultural lands

In September 1978, the Environmental Protection Agency's Director, Douglas Costle, gave final approval to an internal policy to coordinate and direct the Agency's pollution control authorities toward the protection and preservation of environmentally significant agricultural lands. Although EPA construction grants have been used predominantly in suburban areas, or those close to metropolitan areas, the new policy will have effects in any rural areas served by EPA.

The EPA policy statement articulates this purpose:

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[6] S. 1616 and S. 2757, proposing an Agricultural Land Retention Act, were introduced in the Senate. The House bill, H.R. 11122, which was reported to the House, is similar.

> The purpose of this statement is to establish EPA policy that will recognize the environmental value and need to protect agricultural lands in areas impacted by Agency programs. This policy is intended to guide Agency actions, regulations, and programs to assure farmland protection and enhancement in support of environmental quality goals.

In its statement of rationale for the policy, EPA stated:

> Well-managed agricultural lands often play environmentally beneficial roles by providing assimilative capacity, serving as buffer zones, and offering relative environmental stability when compared to urban or developed land uses. Several EPA programs are designed to improve conditions of agricultural productivity, while others are intended to limit and reduce agricultural sources of pollution. Ultimately there may be significant EPA program effects which may induce land use change and development, and remove farmland from production. These losses of agricultural land reduce our ability to maintain environmental quality.
>
> In an effort to protect prime farmland and curb Federal activity leading to losses, EPA must seek to avoid inducing conversion of environmentally significant land unless no suitable alternative exists.

The EPA statement defines prime, unique, and other farmland types, consistent with U.S. Department of Agriculture regulations in 7 CFR part 657, and cites the authorities under which it has a basis for concern for protections of these types of land. These include: The National Environmental Policy Act,[7] a Council on Environmental Quality memorandum for agency heads (August 30, 1976) which I seek to assure that Federal actions avoid where possible encouraging or facilitating irreversible conversion of prime farmlands to other uses; the Clean Water Act,[8] which requires that comprehensive pollution control programs give due regard to agriculture activities; the Clean Air Act amendments,[9] which requires that air quality focus on such public welfare aspects as effects on soils, water, crops, and vegetation; the Resource Conservation and Recovery Act [10] which seeks to assure that solid and hazardous waste disposal activities do not create health or environmental effects by damaging soil or groundwater quality. The Safe Drinking Water Act, which has measures to protect sole sources underground aquifers, which are likely to contain agricultural lands; the Pesticide Act, in sections 3(c)(2), 5(e), and 6(c)(1), which involves reclassification or suspension of pesticide registration, and could lead to conversion of prime farmland to other uses.

Under "Action Required," the policy statement directs "Assistant Administrators and Regional Administrators shall ensure that the actions of their staffs clearly reflect an advocacy for protecting farmlands." A long list of specific Agency actions are required, including such things as the following:

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[7] Under EPA regulations for implementation in 40 CFR part 6.
[8] Sections 102(a), 201(f), 208(b), 212(2)(A), and 304(f).
[9] Sections 102(a), 201(f), 208(b), 212(2)(A), and 304(f).
[10] Sections 1002(b)(2), 1008(a)(3), 4004(2) and 8002(g).

Consider and ensure farmland protection in specific project decisions, such as the location, phasing and design life of sewer interceptors, and treatment facilities;

Recommend mitigation measures for impacts on farmland in reviews of environmental impact statements of EPA decisions and in reviews of decisions to be made by other agencies;

Encourage farmland protection in the review, and approval of environmental management plans (for example, water quality, solid waste, air quality);

Through Agency permitting actions, ensure that the proposed activity will not lead to conversion of environmentally significant farmlands;

Strengthen Agency technical assistance activities for farmland protection in support of State or local government environmental programs.

An extensive background paper for the policy statement establishes in detail the environmental case for protecting farmland, elaborates on the authorities under which the Agency will operate in this area, and explains the trends in farmland conversion, why they are lost, and various approaches for farmland retention. A section on EPA program impacts on farmlands indicates the ways in which the Agency's actions under the cited authorities may influence land use, limit or alter the location of new industries, lead to lower density in growth patterns, or unwittingly encourage secondary urban development in agricultural areas. This section also indicates how these EPA programs may influence farm productivity, increase farming costs, and have effects on types and scale of agricultural practices.

Energy impact assistance.—Energy-related development in rural areas is likely to occur in connection with Federal and private plans to exploit fuel resources. The subsequent effects on rural land uses in wide areas surrounding locations of energy resources are likely to be significant. These effects will result not only from energy development per se, such as new strip mines, mine-mouth powerplants, oil shale processing plants, and other energy developments, but also from the secondary development associated with such installations. Many areas in Alaska are experiencing "boomtown" conditions as a result of the Alaska pipeline activity. Among the resulting adverse conditions in these areas are severe inflation, housing shortages, traffic congestion, increased air and water pollution, increased crime, and other detractions from quality of life. Alaska presents an extreme example, but similar disruptions may occur in other rural areas where energy development projects outpace local capability to plan for and ameliorate the impacts of new growth.

The 95th Congress enacted provisions for assistance to areas impacted by some forms of energy development in the Powerplant and Industrial Fuel Use Act (Public Law 95–620). This law provides for a program administered by the Department of Energy and the Agriculture Department's Farmers Home Administration which makes funds available to areas nominated by Governors in which designated amounts of population growth are associated with coal or uranium production facilities. Some $180 million is authorized over 3 years to provide 100 percent funding for planning by such communities for the facilities needed; loans for land acquisition for the facilities, and grants for development of selected sites are also provided.

In addition, assistance for communities impacted by other types of energy development is provided by provisions of the coastal energy impact fund authorized by 1976 amendments to the Coastal Zone Management Act of 1972, and the Federal Land Policy Management Act of 1976.

SUMMARY

Taken together, these Federal policies and laws have considerable cumulative impact on rural development. Their effects are designed to protect various specific aspects of the environment, and only in some cases is the rural environment addressed in particular. What is still lacking is an articulated goal for protecting the rural environment—and thus a framework for coordinating the many laws which have both beneficial and negative impacts on it. Gaps in Federal policies affecting the rural environment could then be better perceived, and benefits from existing laws could be maximized.

At present, the Rural Development Act and its amendments provide programs to enhance the rural environment, and the other laws discussed above also contribute to the effort. With or without the comprehensive environmental policy element for rural development, the effort to prevent the environmental mistakes of the past in association with development efforts is underway, with beneficial effects in rural America.

LOCAL IMPLEMENTATION OF NATIONAL RURAL DEVELOPMENT PROGRAMS AND POLICIES[1]

INTRODUCTION

For nearly a quarter of a century—since the establishment of a rudimentary nonfarm rural development program at the direction of President Eisenhower in 1955—rural development has been a national objective. The Agriculture Act of 1970 (Public Law 91–524; 84 Stat. 1383) explicitly committed the Nation to revitalizing and developing rural areas as a means of achieving balanced national growth. The Rural Development Act of 1972 (Public Law 92–419; 86 Stat. 657), whose purpose was "To provide for the economy and living conditions of rural America," provided a variety of tools for rural development. At least $74.8 billion in Federal outlays were directed to nonmetropolitan areas in fiscal year 1976.[2]

This paper will focus on the implementation of the Federal rural development efforts at the local level. It attempts to provide Federal policymakers with a picture of the trends affecting local rural institutions, a description of local government and politics in rural and nonmetropolitan areas, and some evaluation of local responses and reactions to Federal rural development programs. Finally, the activities of the various levels of government involved in rural development—Federal, State, and sub-State—are summarized and evaluated.

The finding of this paper is that unless greater emphasis is placed on improving institutional capacity to implement rural development policies at all levels of government, rural development goals will be set back. Overemphasis on programs and projects, and lack of concentration on how these programs and projects are implemented and how they relate to community needs and to one another, can hinder implementation of national rural development goals.

TRENDS AFFECTING RURAL INSTITUTIONS

Rural institutions, no matter how isolated they may be geographically, are not immune to the trends that affect life in today's highly industrialized and urbanized United States. Their ability to respond to the stresses and strains of a changing society, however, may be limited by their small size, the spreadout nature of the population, and certain deeply held philosophical beliefs regarding the relationship of the Government to the individual and the proper role of Government in society.[3]

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[1] By Sandra S. Osbourn, analyst in American National Government, Government Division.

[2] U.S. Department of Agriculture, Economics, Statistics, and Cooperative Service. Federal Outlays in Fiscal 1976: A Comparison of Metropolitan and Nonmetropolitan Areas. (Rural Development Research Report No. 1) Washington, U.S. Government Printing Office, 1978.

[3] Many of the ideas in this section are drawn from U.S. Department of Agriculture, Federal Extension Service. Keeping Up with Change in Rural Society. Washington, U.S. Government Printing Office, 1970.

Expansion of public services

Rural institutions, like urban institutions, are besieged with demands for new services which were previously provided by the family, if at all. Many services that citizens consider essential today come through the action of groups of people or public bodies.

In the early history of the Nation, institutions provided very few services, primarily protection under the law, opportunities for worship, education for the very young, and some public improvements such as roads and canals. Over the years, mass transportation, various public utilities, natural resource development, expanded educational opportunities, new health and social services, antipoverty programs, housing, and race relations programs have been added, with each service built around expanding public institutional entities. Although the current vogue for curbing governmental expenditures (e.g., Proposition 13, the drive for a balanced budget, sunset laws) indicates that this expansion of public services might slow down or decrease, there is little doubt that public institutions will continue to be important as service providers, in nonmetropolitan as well as metropolitan areas.

Technological advances

Rural institutions have also been greatly affected by the technological explosion which has led to specialization and large-scale production in every phase of society. Technological advances have affected rural institutions in two ways, one that is peculiar to rural areas and one that has affected all institutions. The impact of technological advance on rural areas has been summarized by Prof. Eber Eldridge, as follows:[4]

> Three of the four applications of technology—farming, manufacturing, and transportation—essentially are reducing the economic base in the rural community. The fourth application—services and institutions—is pressing for a constantly larger base.

Rural economies have been particularly affected by recent technological changes in agriculture and related industries. The most important effect, in terms of rural development, was the decline in employment in the "natural resource" industries such as mining, farming, and forestry that formed the economic base for many local communities. Not only did this weaken the economic base of these communities, but it also generated the great migration to urban areas that increased the burdens of governments in those areas. Furthermore, advances in transportation and communication technologies have loosened the ties between growers and producers and the local businesses in the area. Large growers can now purchase supplies from suppliers far from the local community and have them shipped in by truck, rail, or air. This further weakens the local economic base.

Technological advances have had a second impact on local rural institutions, one which they share in common with urban institutions but are less able to bear. At the same time that many services were being assumed by public institutions, technology made these services both more expensive and more specialized. For example, health services were formerly provided by a general practitioner, and a single physician often served the entire population of a community; nursing care was generally the responsibility of the family. Today, however, minimum health care service is expected to provide a team of specialists, hospitals, extremely expensive equipment, various nursing services, and physical therapy facilities. Such a health team, however, requires a large population base, a public investment beyond the means of most rural local institutions, and an opportunity for medical personnel to be in constant and immediate touch with the larger medical community in order to stay abreast of current research and techniques. Few rural communities can bear the costs involved in providing such services.

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[4] Quoted in U.S. Advisory Commission on Intergovernmental Relations, The Challenge of Local Government Reorganization. (Substate Regionalism and the Federal System, vol. III.) Washington, U.S. Government Printing Office, 1974, p. 112.

It is possible that the same technological advances that have increased the burdens of rural institutions can be used imaginatively to help solve some of the problems. For example, doctors in rural Georgia communities can get expert medical advice from specialists in the teaching hospitals of the State through a telecommunications network, and rural schools in Appalachia have used communications satellites to bring special programs to isolated areas.

Greater commitment to the adaptation of technology to meet special rural needs could make technological advances benefit rural communities. Frequently, however, technological innovation is oriented toward urban needs rather than those of rural areas. For example, in the field of broadband communications:[5]

> * * * the most notable shortcoming [of national telecommunications policy] from the standpoint of the development of rural communications is the absence of any concentrated policy perspective on the communications needs of rural America. The FCC, beset with innumerable competing demands for its attention, has dealt with problems of rural communications episodically and somewhat indifferently. This is understandable, given the political environment in which it operates and which generally gives but passing notice to distinctive rural needs. In broadcasting, in cable, in telecommunications, the concern of the Congress and the executive, as well as that of the industries and the interested public, has invariably been directed to urban needs and interests. To discern any sustained interest in rural communications among these sectors of policy influence, one must look long and hard.

The same situation prevails in the more prosaic area of waste disposal, as Adrian Brinck, supervisor of Lee County, Iowa found:[6]

> A disturbing fact thus far is that seemingly there is no expertise with the exception of Com-Somat, a trade name, in the incineration field of waste disposal in the 100-ton-per-day class. I attended a seminar in Des Moines sponsored by DEQ. The two gentlemen who put on the seminar were experts in

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[5] U.S. Congress. Senate. Committee on Commerce, Science, and Transportation. "Communications and Rural America." (Committee print) Washington, U.S. Government Printing Office, 1978, pp. 36–37.

[6] U.S. Congress. Senate. Committee on Agriculture and Forestry. "Rural Development Oversight." Hearing. 94th Congress, 2d session. August 20, 1976. Washington, U.S. Government Printing Office, 1976, p. 17.

> waste disposal and recycling. A very informative session, the only problem was that the information given was devoted to the 500 and 1,000 tons-per-day type of waste disposal plants. This eliminates a big share of Iowa.

The Federal Government does appear, however, to be making a concerted effort to encourage the use of appropriate technology in wastewater treatment programs in rural areas. The collector systems and centralized treatment plants which are suitable to densely populated urban areas are too costly to serve the scattered population of rural areas. Consequently, the Environmental Protection Agency is encouraging the use of noncentralized, low-cost treatment technologies in rural areas, and the Clean Water Act of 1977 offered increased grant incentives for the use of alternative technologies and required that States with relatively large rural populations must set aside a part of their allotment for alternative sewage treatment plants for small communities.[7]

Fragmentation of rural communities

A further characteristic of modern society, one which has been strengthened by modern communications technology, is its domination by large-scale, nationwide organizations. At the very time when the need is greatest for strong institutions capable of affecting the policies of these large-scale organizations, cohesion within rural communities is diminishing. In part, this is because professionals, labor organizations, trade associations, and educators are more concerned about their colleagues and goals elsewhere in the large scale special purpose groups than about their own neighbors in the community. Community ties and purpose may also be weakened by the absorption of community schools into consolidated systems, and by the professionalization of previously volunteer services such as fire protection or ambulance service.

Implementation of some new national programs has created further fragmentation in many rural areas. The goal of equal opportunity for all races has resulted in the creation of new institutions, the weakening of some existing institutions, and at times a growing animosity among the several segments of a community. Also, special institutions developed to serve specific groups in the community, such as the poor, the senior citizen, or youth can further pull apart the once solid rural area.

The fragmentation of the rural community has weakened its ability to cope with the actions of large-scale organizations, and has created some feeling of loss of control over the destiny of the community. Any national policy for rural development must take into account both this fragmentation of interest at the local level, which may make it difficult to create support for development programs and must also take into account the hostility to outside forces of change that still exists in many rural communities.

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[7] "If Sewers Are Too Expensive * * * Options for Low Density Areas." County News, v. 9, Sept. 6, 1977: 4A–4D. U.S. Congress. House. Committee on Banking, Finance and Urban Affairs. Subcommittee on the City. "Small Cities: How Can the Federal and State Governments Respond to Their Diverse Needs?" Report, Washington, U.S. Government Printing Office, 1978, p. 33.

Rural influence on development policies

Rural nonfarm interests in the past have not been as effective in influencing the development of national policies affecting them as have their neighborhood farmers. At the congressional policymaking level, for example, rural interests have encountered the following obstacles:[8]

> Because of the diversity of problems facing small towns and cities, a variety of programs are needed to provide comprehensive development. Program needs include housing, education, labor force, welfare, transportation, health care, and water and sewer systems, as well as both farm and nonfarm jobs. Most of these needs are handled by different congressional committees and implemented by many different executive departments. As a result, there are many more decisionmaking points and a greater proliferation of political power in the formation of development policy than agricultural policy. Consequently, micropolitan development policy is much harder to control by a small number of rural Senators and Representatives, even if these legislators have seniority.

It was in response to this situation that the Congressional Rural Caucus was organized in July 1973 "* * * to ensure the orderly growth and development of rural/nonmetropolitan areas and the plans for bringing together the maximum Federal, State, local, and nongovernmental resources available to such areas."[9] With a current membership of 100, the caucus aims at achieving a broader and more intensive awareness of problems and solutions to problems in rural areas and small cities. Among other things, the caucus has advocated implementation and full funding of the Rural Development Act of 1972 and the increased use of loans in rural areas.

Luther Tweeten and George Brinkman, writing in 1976, urged that:[10]

> Micropolitan residents with common objectives urgently need to organize to promote a comprehensive approach to development. The lack of a nationwide, grassroots organization to fight for micropolitan interests has severely hampered the formation of development policy. Such an organization could be composed of city, county, and State development committees and would carry considerable political strength by reaching into every micropolitan county in the United States. Organized groups for specific interests, such as water systems, housing, better jobs, and so forth, also are conspicuously absent. Their absence makes it much easier to terminate programs for water and sewer, for example, than payments to wheat producers.

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[8] Tweeten, Luther, and George S. Brinkman. "Micropolitan Development: Theory and Practice of Greater-Rural Economic Development." Ames, The Iowa State University Press, 1976. p. 50.

[9] U.S. Congress. House. Congressional Rural Caucus. Congressional Rural Caucus (press release). Washington, n.d.

[10] Tweeten, op. cit., p. 53.

Since those words were written, there has been a marked strengthening of the rural area/small city presence in Washington. New organizations have sprung up, and existing organizations have added the concerns of rural areas and small cities to their agendas.[11] The National Rural Water Association, the National Center for Appropriate Technology, the National Rural Center, and the American Association of Smaller Cities were all founded in 1976. Also in 1976, the National Association of Towns and Townships established a Washington office, the National League of Cities organized a Small Cities Advisory Council, and the National Association of Counties adopted a fair share program for rural counties. In 1977, the National Conference of State Legislatures established a rural development committee, the Rural Housing Alliance merged with Rural America, Inc., and the National Association of Smaller Communities was founded.

This outbreak of ruralism on the national scene does not necessarily mean that all is harmony among rural and smalltown interests—indeed, the aims of these various groups do not necessarily coincide. However, it does mean that in the future, rural areas and small towns will be far more visible, and it will not necessarily be easier to terminate programs for water and sewer than payments to wheat producers. It also reflects a marked turnaround in the attitude of some of the organizations involved with rural interests.

For example, the National Association of Towns and Townships (NATaT), established in 1963, had long been a foe of Washington intervention in local affairs, and had resisted participation in Federal programs. Now, however, through the Washington office established in 1976, NATaT lobbies hard to ensure that townships are included in the scope of Federal programs, and that they "receiv[e] a return on their tax dollars."[12] To a great extent, the new presence of rural advocates in Washington and in the States (for example, in Connecticut, where small towns have been organized into a Council of Small Towns to ensure that the State understands the difference between small towns and big cities)[13] reflects two trends which will be discussed below: The increasing interdependence of institutions in contemporary America and the growth of population in nonmetropolitan areas.

Interdependence

Rural institutions have increasingly been affected by the growing interdependence of all institutions in the country. This interdependence is a natural outgrowth of specialization and large-scale organizations, with health services and comprehensive education being prime examples. It has been said that "the local rural institution, be it church, school, or what, stands no more chance of being self-sufficient in the last third of this century than the modern commercial farmer."[14]

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[11] For profiles of these organizations, see National Rural Center. A Directory of Rural Organizations. Washington, 1977, 54 p. Stanfield, Rochelle. Small Cities Are on the Prowl for Help from Washington. National Journal, vol. 10, Oct. 7, 1978: 1597–1601.

[12] Stanfield, op. cit., p. 1597.

[13] Small Towns Organize in Connecticut. National Community Reporter, vol. 2, June 1978: 5.

[14] Ratchford, C. B., in U.S. Department of Agriculture, Keeping Up With Change..., p. 16.

Local governments are also feeling the effects of increasing interdependence, as they must increasingly interact with aroused citizen groups, with neighboring jurisdictions, and with Federal and State governments. It is this loss of independence which has stimulated stronger representation of nonfarm rural interests and small towns at distant centers of influence, whether it be Washington or the State capital. In part, this reaction is defensive, as small rural communities try to influence the rules and regulations which are having an increasing impact on their methods of operations. Another aspect of this reaction is offensive, as small communities are becoming more insistent on getting what they see as their "fair share" of the resources made available by other levels of Government.

The increased interdependence of institutions and complexities of modern life have, in the views of some, diminished the capacity of local governing bodies to govern effectively. Certainly, it has forced them to change their methods, and change is seldom comfortable. E. A. Mosher, director of the League of Kansas Municipalities, has summarized some of these change inducing trends.[15]

> Increased demand for citizen involvement and citizen participation places added demands on the time and energy of elected local officials. [These demands have been stimulated, in part, by citizen participation requirements in Federal and State assistance programs.]
>
> More issues and problems (for example, housing and employment opportunities) are being added to the list of local government responsibilities.
>
> The environment within which a governing body operates is increasingly of an intergovernmental nature. City concerns do not stop at city boundaries, nor at city hall. The courthouse, the statehouse, and the White House are also very much involved.
>
> In many communities, there is an increase in the number and activity of quasi-public and private agencies involved with "public" concerns. For example, a larger community concerned about social services may find that there are literally dozens of such groups who want a piece of the action.
>
> There seems to be a growing "me first" attitude in our society. The absence of widespread shared values and generally accepted community goals places strains on a representative system of government.
>
> The competition for the use of limited local resources is expanding. This is partly due to the stable revenue base of most local units in an inflationary economy. But it is also due to an increase in the competitive choices for spending, resulting from citizen demands, perceived public needs (and the expansion of public services).
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> A prevalent lack of respect and confidence in the Governors by the governed. (Mosher is not sure this is as wide-

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[15] Mosher, E. A. How Can Governing Bodies Govern? Kansas Government Journal, vol. LXIV, September 1978: 300. The comments enclosed in brackets are not Mosher's; they were added by the author of this paper.

spread as some would have us believe, but "certainly local decisions are being challenged more often than in the past." As the city planner of Fort Madison, Iowa, noted in testimony before the Senate Subcommittee on Rural Development:[16] "* * * the one thing that amazed me is that a very small group of citizens appear to have the most power in this particular situation. It seems that it's sort of a thing that you have to say in shame or have a hesitancy to say, 'I'm a duly elected city official' because that doesn't seem to carry the weight that it used to.")

The increasingly complex and technical operations of local government are a part of this general trend. Providing an adequate and healthful water supply, for example, is a much more complex task than in earlier years. While elected officials might have been expected in the past to know most of the mechanical aspects of government functions, this is impossible today.

Not only are most functions more complex, but we are also discovering many more interrelationships between functions and actions. What we do here impacts what we do there. (As Daniel Patrick Moynihan once noted, "Everything relates to everything.")[17]

Finally, this review of developments affecting governance would not be complete without notice of the tremendous growth in State and Federal laws and rules and regulations and standards, which not only affect what cities and other units do, but often determine when and how they do it. This list is extensive. What they add up to is that more and more of the important decisions which affect the governing of cities, for example, is made by those outside the city as well as outside city hall.

Population turnaround

One of the most startling trends, which may have far-reaching implications for delivering government services in rural areas, as well as for strengthening the voice of rural nonfarm interests, is the recently documented shift in population distribution away from metropolitan areas and toward nonmetropolitan areas. Between 1970 and 1976, nonmetropolitan area population increased by 8 percent, compared to 4.7 percent in metropolitan areas. Nonmetropolitan areas had a net gain of 2.2 million migrants during this period.

This new trend in population distribution has been called a "rural renaissance," in which, for example, nearly two-thirds of all nonmetropolitan counties have gained migrants in the 1970's, compared with only one-quarter in the 1960's and one-tenth in the 1950's. This migration pattern is affecting remote, nonadjacent nonmetropolitan areas as well as those adjacent to metropolitan centers, and therefore reflects something more than just a continuation of "metropolitan spillover."[18]

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[16] U.S. Congress. Senate. Committee on Agriculture and Forestry. Rural Development Oversight. Aug. 20, 1976, pp. 37–38.

[17] Moynihan, Daniel P. Counselor's Statement, in U.S. National Goals Research Staff. "Toward Balanced Growth: Quantity With Quality." Washington, U.S. Government Printing Office, 1970, p. 7.

The new population growth in nonmetropolitan areas has been associated with a variety of causes and will, therefore, require a variety of responses from Government. Some of the factors associated with nonmetropolitan growth, and examples of them are:[19]

1. Exurbanization and urban sprawl into adjacent nonmetropolitan counties: Counties surrounding Metropolitan Washington, D.C., St. Louis, Nashville, Atlanta, and Minneapolis;
2. Growth associated with shift from big city to peripheral manufacturing sites: Idaho, Michigan, Wisconsin, Arkansas, Tennessee, northern Alabama, northeastern Mississippi, western Kentucky, North Carolina;
3. Industrial revival associated with energy extraction: Of necessity, emphasis here is on States in which a significant amount of industrial activity was already underway prior to the oil embargo: Utah, Wyoming, Kentucky, and West Virginia;
4. Growth associated with an influx of retirees: Upper Michigan, Missouri, Arkansas, New Hampshire, New Mexico, Oregon, California, and Florida;
5. Growth associated with recreation: Michigan, New Hampshire, Vermont, Missouri, Arkansas, California, Oregon, Utah, and Colorado;
6. Growth associated with energy availability or price: Tennessee, Alabama, West Virginia, Kentucky, Oklahoma, and Colorado;
7. Attractiveness of climate: Florida, California, and New Mexico;
8. Alternative lifestyles: New Mexico, Colorado, and New Hampshire;
9. Growth of areas containing a State capital, senior State college, dam, or substantial military population: States too numerous to list.

Clearly, the varying growth-inducing factors will require varying responses on the part of the impacted community. For example, a large influx of retired persons will require a different set of services than would those attracted to a college community. New recreation communities may require greatly expanded services, but only at certain times of the year. Finally, there may be greater expectations of services on the part of the newer residents than the receiving community is willing or able to provide. This may lead to resentment from the earlier inhabitants of the community, as the following letter to the editors of Organic Gardening indicates:[20]

> "There Won't Be Any Country Left" Dear Editor: I am writing to comment on your editorial ("Rural Renaissance

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[18] U.S. Congress. House. Committee on Banking, Finance and Urban Affairs. Subcommittee on the City. "Small Cities: How Can the Federal and State Governments Respond to Their Diverse Needs?" Hearings, 95th Congress, 2d session, May 16, 19, 26, 1976. Washington, U.S. Government Printing Office, 1978, pp. 2, 8.

[19] U.S. Congress. House. Committee on Banking, Finance and Urban Affairs. Subcommittee on the City. "Small Cities * * *" (report) p. 11.

[20] Austin, Bonnie. "There Won't Be Any Country." Organic Gardening and Farming, vol. 22, November 1975: 10.

> on the Way" by Robert Rodale) in the September issue of OGF.
>
> We live on the edge of * * * the Ozarks. In the last 5 years there has been a great deal of buildup of new homes here. Far too many of these people think they have it made once they get a piece of land in the country. Many of them think that there is no work to growing things—just get to the country and get rich quick.
>
> Also, when they get here, they usually want all the things they had in town: paved roads, water systems, mail to their door, school bus to the door, electric lines everywhere, telephones, etc. Besides, they go to town every day to a job to keep things paid for.
>
> I believe that when these large masses move to the country, they will bring all the crime, decay and problems with them. If all the city people move to the country, there won't be any country left.
>
> BONNIE AUSTIN,
> *Butler, Mo.*

Rural institutions in the twentieth century, then, must deal with increased demands for public services, technological change, the growth of national institutions, increased interdependency among the various components of modern society, and new stresses and strains brought on by growth and development. It may be appropriate, then, to look at the local governmental structure in nonmetropolitan areas in order to assess the capability of these local governments to handle their new tasks, which are frequently alien to established ways of doing things, and to examine, from the local viewpoint, the impact of Federal rural development policies on local rural institutions.

LOCAL GOVERNMENT AND FEDERAL RURAL DEVELOPMENT ENDEAVORS

> In my own small city our tax income for fiscal year 1976–77 is $8,060. Our total income is about $30,000. One project attempted, and by the time the application was made we would have a good portion of our tax income expended, knowing we were faced with overwhelming odds of not getting the grant or loan because of our inability to pay it. Gentlemen, bear in mind that the very small cities have part-time mayors, part-time councilmen, a part-time clerk, and possibly no full-time employees. Our city attorney is obtained on an hourly basis. * * * We just cannot afford to pursue the grants and loans to get the facilities we need.[21]

This is the story of the mayor of Conesville, Iowa, but it is a story that could be repeated many times over, from Washington to Florida and from Maine to California, illustrating how the character of rural local governments may affect Federal rural development undertakings, and how local officials view these efforts. This section of this paper describes the current institutional and political settings of rural local governments, and some aspects of the relationships of these governments with the Federal Government.

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[21] U.S. Congress, Senate, Committee on Agriculture and Forestry. "Rural Development Oversight * * *" Aug. 20, 1976, p. 23.

The local government landscape

Local governments abound in America's nonmetropolitan areas. Census Bureau figures for 1977 show that 27.4 percent of the Nation's population live in nonmetropolitan areas which contain 67.6 percent of the local governments in the Nation.[22] These nonmetropolitan areas contain 80.5 percent of all counties, 76 percent of all townships, 65.8 percent of all municipalities, and 63.1 percent of all special districts. The 1977 Census of Governments reported a total of 79,862 units of local government; 53,993 were outside of SMSA's. A large percentage of these governments serve small, highly dispersed populations: 69 percent of all non-SMSA counties have a population of less than 25,000, while 61 percent of all non-SMSA municipalities and 70 percent of all non-SMSA townships have populations of less than 1,000.

The purported inadequacy of these local governments has been a constant theme in public administration literature for at least 25 years. In 1952, Bruce Lancaster wrote that:[23]

> Such local areas cannot pay for what they need from their own local resources; they cannot supply from their own inhabitants the skills needed; there are some functions which they ought not to be carrying on at all; and they are generally unsuitably organized for doing even those things which might fairly be regarded as belonging to them.

These findings were reiterated in 1978 by the Advisory Commission on Intergovernmental Relations:[24]

> The problems of nonmetropolitan governments, then, are the problems of expense, inefficiency, and lack of progress. Compared to metropolitan governments, nonmetropolitan governments provide fewer services, have less administrative leadership capacity, tend toward diseconomies of scale, have inadequate financial bases, and use intergovernmental cooperation agreements less frequently.

Consolidation

For years, reformers have urged consolidation of governmental units and/or functions in rural and nonmetropolitan areas in order to provide for economies of scale and to improve the efficiency of rural service delivery. The record of county consolidations—only three rural counties have been consolidated with other counties since World War I—indicates that this approach has little feasibility, as far as general purpose units of local government are concerned. The record is quite different with regard to school district consolidation. Between 1942 and 1977, according to the 1977 Census of Governments, school districts decreased from 108,579 to 15,174 as a result of consolidation.

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[22] U.S. Bureau of the Census, 1977 Census of Governments, Governmental Organization, (vol. 1) Washington, U.S. Government Printing Office, 1978.

[23] Lancaster, Bruce, Government in Rural America, New York, D. Van Nostrand Co. 1952, p. 337.

[24] U.S. Advisory Commission on Intergovernmental Relations, "Nonmetropolitan Growth and Development," in U.S. White House Conference on Balanced National Growth and Development. Final Report; appendix, (vol. 6) Washington, U.S. Government Printing Office, 1978, p. 203.

Some observers now are beginning to think that consolidation may not always prove to be a satisfactory answer to the problems of rural service delivery, even when it can be achieved:[25]

> Economies of size are found for some services, but they are usually exhausted within relatively small size systems. Increases in public or private transportation costs offset saving in operating costs of the delivery unit. Costs associated with low population densities, typical of rural areas, seem to override short-run benefits from consolidation of services systems.

Research findings such as these have led some scholars to question conventional assumptions about the more efficient delivery of services resulting from the creation of fewer and larger public or private bureaucracies through consolidation. Rather, they recommend experimentation with alternative organizational forms for service delivery, such as direct service provision by private firms, contractual arrangements between governments, contracts between governments and private firms, and increased reliance on user fees. While some research has been done on the possibilities of such arrangements for service delivery in urban areas, little has been done in rural areas.[26]

Redesigning local government

If the slate could be wiped clean and a brand new system of governments could be designed to serve rural areas, it is unlikely that the existing structure would be the result. However, the slate is not likely to be wiped clean, so the designers of rural development programs—whether they are Federal, State, or local—must work within or around the existing structure. The existence of these thousands of units of local government, with all their varying strengths and weaknesses must be taken into account in the design and implementation of any national rural development program.

The States have potentially the most important role in redesigning the local government landscape, though few States have utilized their powers to the fullest. Local governments are legally the creatures of the State, subject to State determinations of their powers and responsibilities. There have been proposals in the past that State revenue-sharing funds should be used as a lever to induce State action with regard to local government modernization. Some of the options that have been proposed with regard to State reform of local governments are as follows:[27]

Encouragement of consolidation of small, sparsely populated counties;

Supervision, counseling and assistance in fiscal management, particularly the design and marketing of local bond issues;

Folding of special-purpose districts into general-purpose local governments directly or as captives;

Ballot shortening and establishment of merit systems;

Increased technical assistance through circuit riders;

State-local sharing of personnel costs for essential professional services;

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[25] Jones, Lonnie L. and Paul H. Gessman, "Public Service Delivery in Rural Areas: Problems and Decisions," American Journal of Agricultural Economics, December 1974: 938.

[26] Ibid. p. 940.

[27] Council of State Planning Agencies, "State Development Strategies for Rural Communities," Washington, 1977, p. 14.

Integration of cooperative extension with other State technical assistance capabilities;

Bond banking and bundling;

Use of population-dispersal factors in formulas for the allocation or distribution of State social service funds and efforts, including education and public health; and

State assumption of service financing and revenue sharing to local governments.

Over the past 20 years, the Federal Government (with the Department of Agriculture as the lead agency) has experimented with a variety of organizational approaches to implement rural development programs at the local level. New structures—rural areas development committees, overall economic development program committees, technical action panels, economic development districts, resource conservation and development projects, rural renewal programs, concerted services projects, State-sponsored area planning and development commissions, and federally aided nonmetropolitan planning districts—have been grafted onto the existing governmental structure, some more successfully than others. In an evaluation of these attempts to create new planning and development structures in nonmetropolitan America, James Sundquist concluded that:[28]

> They foundered because, among other reasons they could not be fitted uniformly to the diversity of American communities—not alone the physical and economic differences among communities but, what is even more important for model-building, the institutional diversity. * * * The shortfalls in institutional capacity in a State or area define the vacuum to be filled by structural innovation. The functions that are being least successfully performed by the existing institutions, in relation to the importance of those functions, become the focus and the emphasis of the new organizations that needs to be created. Any model then, needs to be adapted to local circumstances in light of these considerations.

Federal efforts to create local planning mechanisms also may have been hampered because of an urban orientation to planning. Sophisticated planning efforts are necessary if rural areas and small towns are to cope with the impacts of growth and change. But the imposition of undifferentiated metropolitan planning solutions may be so alien to the milieu of these communities that they are doomed to failure. The planning environment of small towns as distinguished from metropolitan areas usually involves:[29]

(1) A small circle of decisionmakers who can be easily reached if not easily persuaded;

(2) A slower tempo of development pressure;

(3) A greater proportional impact of major development if it occurs;

(4) Fewer resources (staff, libraries, research capabilities, and consultants) to cope with major planning problems when they arise;

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[28] Sundquist, James L., "Making Federalism Work," Washington, The Brookings Institution, 1969, p. 215.

[29] Eberhart, Dee, "Toward an Awareness of Special Needs: Planners and Small Towns," Small Towns, vol. 6, October 1975: 4.

(5) Less reliance on government and more of a laissez faire attitude by citizens and their representatives; and

(6) Less power of organized environmental and consumer groups (which often are closely affiliated with professional planners).

Local politics and policymaking

A review of the literature on Federal attempts to act as a change agent in rural settings indicates that for a variety of reasons these efforts have not been successful. In part, this is because of local attitudes and beliefs that inhibit national policy implementation. Some rural leaders have reacted to the various forces which have precipitated changes in their communities by ignoring the forces, in the hope that they would simply go away. They react by continuing to place great faith in more production and more employment as the answer to all their problems. They reject any proposals that would change local institutions, such as planning and zoning or consolidation of governmental functions. They may not seek Federal funds, because they must apply for the funds and must use them for certain purposes. This process itself requires a sense of need and desire for change which may be lacking among community leaders.[30]

One study concluded that small communities in general exhibit a marked resistance to externally stimulated change, in large part because of the way that their political systems operate.[31] Essentially, Alvin Sokolow argues that small community political systems are designed to minimize serious political conflict, which might tear the community apart. While politics is a pervasive element of local life, the political system is usually closed to serious debate of major public issues. Certain behavioral patterns have been established which reinforce these political systems:[32]

(1) The absence of interest group competition: "Governing boards refuse to deal with the leaders of emerging groups, and power elites exercise their economic and social sanctions to discourage organization for political purposes. If dissatisfactions are to be expressed, the proper route is through the community's informal communications network and through the contacts of individual citizens with their accessible public officials."

(2) Decision strategies which emphasize consensus. These strategies are designed to avoid the open expression of conflict, and the "effort always is on avoiding direct confrontations with proponents of new policies and programs."

(3) Informal and nonspecialized styles of administration. Many governing boards, even in communities which have executives or general managers, prefer to concentrate on the details of day-to-day administration rather than on policy deliberation and determination. "By concentrating on the familiar and the routine, they obtain the satisfaction of carrying out the public's business

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[30] Ratchford, C. B., in U.S. Department of Agriculture, Keeping Up With Change * * *, p. 18.

[31] Sokolow, Alvin D., Small Community Policy Making and the New Federalism (a paper delivered before the American Political Science Association, September 1975), pp. 10–12.

[32] Ibid., pp. 10–11.

without having to get involved in the more complicated policy problems that threaten unanimity and the status quo."

If conflict avoidance is the primary goal of small community political systems, it is easy to see why rural development efforts, whether they are initiated by the Federal Government, by State government, or by private interests, may be seen as disruptive and may be resisted by community leaders. After all, as one observer has noted: [33]

> Preoccupation with development, whether it be community, urban, rural, or economic, has created an issue fundamentally different from those government has dealt with before. It is a quantum leap from the recitation that government exists to preserve order, provide for the national defense, and furnish public goods and services to the claim that government should assure that "development" occurs.

The leaders of small community political systems may be unable or unwilling to make that "quantum jump." Development, by its very nature, implies change, and these changes can be threatening to the existing social and political system. Industrial development, for example, which is the centerpiece of most federally sponsored rural development efforts, is not necessarily welcome, as an elected official of Starr County, Tex., has noted: [34]

> The obvious question is that with all of the economic advantages we have [i.e., an available labor supply, a good climate, a low cost of living, and the proximity to the retail market of buyers from Mexico], why don't we have more economic development? I believe it must be the human factor—that is, politics. A lot of people don't want to see us grow and diversify. Change brings about too much uncertainty for some.

Programs that require identification of needs, establishment of explicit goals, and a planned program for change will be unacceptable to the participants of many rural political systems, who, acting out of what they perceive to be the best interests of the community, may very well thwart all such attempts. They can, of course, thwart national development purposes simply by refusing to apply for available Federal assistance: [35]

> Local officials in many communities preferred not to join the Federal grant system because of the possible upsetting effects on their governing styles. Decision costs would be involved, expenditures of time and energy as well as local public funds, and the officials were not eager to complicate their simple legislative and administrative processes. Many local officials had a basic, ideological hostility to Federal intervention in their affairs. And for others the admission of

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[33] U.S. Congress, Senate, Committee on Agriculture and Forestry, Subcommittee on Rural Development, Planning Frontiers in Rural America: Papers and Proceedings of the Boone Conference, (committee print), Washington, U.S. Government Printing Office, 1976, p. 101.

[34] U.S. Department of Labor, Manpower Administration, Office of Research and Development, Labor Markets in the Rural South: A Study Based on Four Rural Counties, Washington, 1977, p. 353.

[35] Sokolow, Alvin D. "Small Community Policy Making * * *," p. 14.

local inadequacies implied in the grant application process was reason enough to avoid participating in the aid programs.

National standards

Other assessments of Federal programs for rural areas suggest that they have not been entirely successful because nationally set regulations, requirements for funding assistance, and the setting of minimum service levels may not jibe with local needs or local capabilities and may make it impossible to generate local development strategies that are consistent with local expectations. These requirements have been set for valid reasons: To prevent waste or loss of funds, to insure that all citizens will receive equal treatment, or to facilitate concentration of assistance in areas of special need. However, these nationally established requirements may make it impossible for local communities to use Federal assistance to meet community needs: [36]

> Local human, financial, and physical resource limitations may restrict the set of locally feasible responses to community service needs so that there is little or no correspondence with the set of responses required to meet outside-the-community requirements and guidelines. When this happens, the decision maker is forced into a choice between locally feasible but legally deficient services and locally infeasible services meeting standards set outside the local area. In either case local people feel their return from tax dollars spent is unacceptably low, and decision makers react negatively to proposals for change.

The plight of the Rudd, Iowa, Public Library, which received national press coverage in late 1977, is an illustration of this syndrome. Rudd, with a population of 429, has an annual library budget of $3,591, most of which goes to pay for heat and the salary of a part-time librarian. The library receives funds from the town and from the county, and has access to an interlibrary loan program and a regional research library. However, this support was threatened last year because the Rudd Library did not have wheelchair ramps and other structural features thought to be necessary to conform with the requirements of section 504 of the Rehabilitation Act of 1973. This law required that any public institution receiving Federal funds must be made accessible to people in wheelchairs and other handicapped persons. Since some of the library's funding sources came (indirectly) from Federal revenue sharing funds, it had to meet these standards, even though no resident of the town used a wheelchair. It was estimated that in order to meet the new standards, 92 percent of Iowa's public libraries would have to make structural changes at an average cost of $6,500. Such an expenditure was clearly beyond Rudd's ability to pay.

The president of the Rudd Library board described the situation in these words: [37]

> We think in terms of "hundreds" [of dollars], not "thousands." We are supposed to submit plans for remodeling by

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[36] Jones, Lonnie L. Public Service Delivery in Rural Areas, p. 941.

[37] "Library in Town Without Wheelchair Told To Install Ramp." New York Times, Oct. 30, 1977 : 26.

> mid-December, but we can't ask a lumberyard to spend half a day on something we know we can't afford. So the only alternative is to close the library to the whole community just because we can't remodel for the nonexisting handicapped. Isn't that ridiculous?

The Department of Health, Education, and Welfare's Office of Civil Rights argued that even though there were no wheelchairs in Rudd at that particular time, there might be in the future, and that there were undoubtedly elderly residents who would benefit from the recommended building revisions.

The Rudd story ended happily, as the HEW Office of Civil Rights ruled that "* * * the provision requiring such improvements was one that could be interpreted flexibly, adding that the rule could be bypassed if some other access were available for handicapped people."[38] Rudd's problem was resolved by using the skills of the local high school shop class, which built a wooden ramp to provide access. This episode illustrates several points with regard to national standard-setting as it impacts rural communities:

(1) The opportunities for misunderstanding are apparently limitless. One of the problems in the Rudd situation was that a State agency misinterpreted the HEW regulations.

(2) Regulations should be flexible enough to allow for various means of achieving the desired end. The goal of the Rehabilitation Act was to provide access to services, not to buildings. Consequently, the regulations were rewritten (partly in response to the Rudd experience) to emphasize this point, and to provide examples of revised service delivery methods that would not require structural modifications.[39]

(3) Rural communities need not always be forced to choose between going "first class or not at all."[40] Imaginative use of the resources within the community (such as the Rudd High School shop class) may enable local communities to meet national standards without bankrupting themselves.

The issue of standard setting is not likely to go away in the near future. Rather, as more communities become involved with Federal or State programs, there will undoubtedly be increased tension over this issue between grantors and grantees. Some of these confrontations may be worked out peaceably, as in the case of Rudd. In other cases, where meeting national or State standards places an intolerable financial burden on local communities, local government officials are demanding that the Government which mandates certain program standards should pick up 100 percent of the cost of meeting the standards.

Local perceptions of Federal attitudes

Rural community leaders, in their dealings with the Federal Government are sometimes put off by what they perceive as attitudes of impersonality and inflexibility. A study of small community problems in Illinois found that local leaders resented having to deal with all Federal guidelines and requirements, regardless of individual circumstances. They also resented attitudes typified by a Federal official's statement that "Cairo was like all other communities in Southern Illinois," especially since the official had never been in the region.[41] According to a survey of rural community needs in Oklahoma, "Local government officials in rural areas resent being 'experimented with' by what they call 'social engineers.' They especially resent having problems defined in Washington, 'solved' in an academic setting, and the 'solutions' imposed in their communities." [42] It is probably because of these attitudes that officials of small local governments are more likely to turn to the State or to substate organizations for technical assistance, rather than to the Federal Government.[43]

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[38] "HEW Tells Iowa Library It Accepts Lack of Ramps for Handicapped People." New York Times, Nov. 14, 1977 : 31.

[39] "Nondiscrimination in Federally Assisted Programs; Policy Interpretations." Federal Register, vol. 43, Aug. 14, 1978 : 36034–36036.

[40] Mosher, E. A. "Go First Class—Or Not at All?" Kansas Government Journal, vol. LXI, December 1975 : 461.

Many local communities which have mobilized a rural community development process and which seek Federal assistance in meeting local goals find that the fragmentation of Federal rural development programs and policies creates a barrier to progress and a constant source of frustration. To those leaders, it seems clear that there is in fact no coherent Federal policy regarding nonmetropolitan community development, and no concerted effort to make Federal resources available in a package that is related to the needs of the community. The Illinois Small Community Problems Committee found that "The absence of a national policy toward small-town development underscores conflicting approaches by various agencies of big government." [44] The Colorado Rural Development Commission reported that: "Due to the fragmented nature of the Federal and State programs proposed or currently in operation, local officials are often unaware of projects within their constituencies. This fragmentation leads to duplication of efforts, overlapping of programs, wasted money and a lack of control over local affairs by the very people elected to deal with them." [45] The director of the Southeast Iowa Regional Planning Commission, located in Keokuk, testified before a Senate subcommittee that: [46]

> I think there are really three things that should be done by Federal agencies either at the State level or at a Federal regional county level. They must break down the communications barrier and exchange information concerning the individual Federal agency's abilities to meet these needs. Then HUD will know what Farmers Home Administration can do and vice versa, and they can get together to solve their problems. Third, they must form a well-thought-out and coordinated effort by the Federal agencies to assist these communities.

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[41] Illinois. Department of Local Government Affairs. Summary Report and Recommendations of the Small Community Problems Committee. Springfield, 1972, p. 8.

[42] Center for Local Government Technology. "Better Solution/Better Communities: An Engineering and Management Technology Extension System for Oklahoma." in National Science Foundation. Office of Intergovernmental Science and Research Utilization. Report of the OMB Study Committee on Policy Management Assistance. (vol. III) Washington, 1975, p. 62.

[43] Jones, William A., Jr., and C. Bradley Doss, Jr. "Local Officials' Reaction to Federal 'Capacity-Building.'" Public Administration Review, vol. 38: 64–69. U.S. General Accounting Office: State and Local Views on Technical Assistance. Washington, U.S. Government Printing Office, 1978, 63 pp.

[44] Illinois. Department of Government Affairs. Summary Report * * *, p. 8.

[45] Colorado. Rural Development Commission. Report. Denver, 1972, p. 19.

[46] U.S. Congress. Senate. Committee on Agriculture and Forestry. Rural Development Oversight * * * Aug. 20, 1976, p. 23.

Up to this point, we have tried to describe the local political and institutional setting in which federally sponsored rural development programs must operate, and local perceptions of Federal rural development efforts. The following section of this paper will describe Federal and State organization for the development and implementation of rural development policies. At present, the Federal structure and its relationship with the States and communities is under intensive scrutiny, partly in response to local perceptions such as those described above.

FEDERAL AND STATE DELIVERY SYSTEMS

Rural development is a broad mission that involves the activities of Federal and State governments as well as the private sector. The coordination and orchestration of these efforts so that they are active in rural areas in a mutually supportive way has been a continuing concern of rural development participants.

The Federal Government may deliver programs directly at the local level, or may act through multistate, State, or multicounty agencies. The States act as middlemen in some Federal rural programs, and some States initiate their own rural programs. States also are significant in their constitutional role as the source and central authority for all local governments within its boundaries. The traditional units of local government described in the preceding section have been joined in recent years by new units, usually multicounty, created by Federal or State law to perform certain functions. The future of these units is not clear.

The Federal Government and rural development

Since 1955, when rural development became a stated objective of the Federal Government, the Department of Agriculture (USDA) has been the lead agency for implementing rural development programs. In large part, this is because USDA had an existing delivery system in rural areas throughout the land. This lead agency role was given legislative backing in section 603 of the Rural Development Act of 1972, which directs the Secretary of Agriculture to provide leadership and coordination within the executive branch and to assume responsibility for a nationwide rural development program using all executive branch departments and agencies in coordination with rural development programs of State and local governments.

USDA's performance of this role has not been without flaws. In part, this is because of the fragmentation of rural development efforts and the sometimes unenthusiastic approach to rural development within the Department itself. Writing in 1973, William Carlson, who was Director of the Office of Planning and Evaluation at USDA at the time the Rural Development Act was passed, described the Department's rural development delivery system as follows:[47]

> At the present time the Department has roughly 20,000 field offices representing not the USDA but the 25 constituent agencies of the USDA. In a typical county there might be several field offices from USDA: The Farmers Home Admin-

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[47] Carlson, William A. "New Federalism and a New Program. The Rural Development Act of 1972," in American Society for Public Administration. "The Administration of the New Federalism." Washington, 1973, p. 70.

> istration, the Soil Conservation Service, a local ASCS commodity office, and possibly one or two others. They might be in the same office building or in different towns. They may know one or two of the other USDA representatives or they may never have met. It is a very fragmented and uncoordinated system.

Not only were the USDA agencies frequently physically separated at the local level, they were also performing their various functions in isolation from one another. Each line agency made program decisions in accordance with its own guidelines and requirements, without ever thinking how its decisions related to the concept of rural development, or how they related to the decisions of other USDA agencies. Rural development activity involved contact with a new constituency, and with new functions (for example, financing a factory as opposed to a farm) and there was reluctance on the part of many USDA employees to deal with nonfarm rural situations.

At the national level, coordination was made the responsibility of the Assistant Secretary for Rural Development, a position that was established in 1973. Ultimate responsibility, however, was placed with the Rural Development Service, which has been described by the current Assistant Secretary as "* * * a very small staff group which was buried in a large department that apparently had little commitment to overall rural development." [48]

In an administrative action in October 1977, the Secretary of Agriculture abolished the Rural Development Service as a separate entity. Its staff and responsibilities were absorbed by the Farmers Home Administration where it became the program, policy analysis, and evaluation staff reporting directly to the FmHA Administrator. The Secretary also proposed to change the name of the FmHA to the Farm and Rural Development Administration, a proposal which has not yet been approved by the Congress. This reorganization was part of the Secretary's response to the departmental problems described above, problems which were as pervasive in the spring of 1978 as they were when Carlson described them in 1973: [49]

> A primary motivation of the merger was to signal an emphasis on rural development within the Department. In this respect, the change of the name to Farm and Rural Development is significant. It signals several important changes of emphasis, especially when one considers that Farmers Home is the Department's major economic and community development program. First of all, it signals not only that rural development has a substantial nonfarm component, but also that efforts to strengthen the family farm and living conditions of farm people are aspects of rural development; and it implies the need to integrate activities for each into mutually reinforcing sets of programs. Second, it signifies both internally to the Department and externally that rural development has become a primary operations responsibility of the Department. * * *

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[48] U.S. Congress. Senate. Committee on Agriculture, Nutrition, and Forestry. Subcommittee on Rural Development. Rural Development Oversight. Hearing, 95th Cong. 2d sess. Apr. 25, 1978. Washington, U.S. Government Printing Office, 1978, p. 60.

[49] Ibid., pp. 7, 13, 16, 31.

> The Secretary and the Congress have said that rural development is an equal mission in the Department of Agriculture. Now, making that pronouncement does not necessarily make it reality. The behavior of several thousand USDA people who are in the communities is what really makes it so. We know that there are some barriers in terms of sets of people and their own career expectations that prevent working together as much as we ought to. * * *
>
> You know, the State manager [of FmHA] may very well be an individual who takes care of billing and taxes and things like that. Often he does not have the expertise to deal with land use issues or attracting industry into a community or identifying the appropriate Labor Department assistance or medical care assistance that is necessary for them to improve the quality of life. Those are some of the handicaps that we want to address in building a better Federal, State, and local relationship.
>
> Senator Clark. You say that some USDA agencies have not yet translated rural development into their missions. Why not? What are the problems?
>
> Mr. Mercure. We do not mean that USDA agencies are not carrying out rural development programs. They are doing this, but largely in response to their particular legislated authorities for various line programs. This may be said of the Farmers Home Administration as well as other USDA agencies.

The field structure of FmHA is also being reorganized in an effort to strengthen FmHA's rural development capacity. In the future, district offices will be responsible for processing and servicing all community facilities, multifamily housing, and business and industrial loan programs. The rationale for this reorganization was described by Assistant Secretary Mercure as follows:[50]

> In the past, Farmers Home has operated its programs rather independently and, in some cases, without adequate sensitivity to the broader development implications of its investment decisions. Another way of saying this is that the agency has been administering a number of programs that lend huge amounts of money, but it has not done this as a development agency. It did not adequately consider whether its investments bore any relationship to a substate development district's priorities or a State's development goals, for example. * * * Under the reorganization, the key local development role will be played by the district office. In addition to administering the community development loan programs, they—along with the FmHA State offices and the National office—will exercise the convening authority of section 603 of the Rural Development Act. In this case, they will do this to bring together local, county, and areawide officials with State officials, officials of other Federal departments, and community leaders to help plan and coordinate rural de-

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[50] U.S. Congress. House. Committee on Banking, Finance and Urban Affairs. Subcommittee on the City. "Small Cities * * *" hearings * * *, pp. 168–169, 172.

> velopment efforts in the area. The ultimate goal of all of this reorganization is to move the making of grants and loans from a program management framework into a policy and investment framework.

The Rural Development Act's mandate to coordinate implies that USDA is not alone in providing assistance for rural development, and this is indeed the case. A 1973 count by USDA identified 25 Federal departments or agencies operating in approximately 15 broad program areas and administering approximately 400 separate identifiable programs aimed at rural development. This count includes only those programs that directly affect rural living, and not all of those that impact on rural areas.[51] The Rural Development Service estimated that approximately 85 percent of Federal resources available to nonmetropolitan areas are administered by agencies, commissions, and authorities outside USDA.[52] Each of these programs is accompanied by different regulations, guidelines, and conditions for participation. Each one is directed toward a particular clientele or type of project. This situation has been described by ACIR as "* * * a textbook example of everyone wanting a piece of the pie—and getting it."[53]

It is this rather chaotic situation that section 603 directs the Secretary of Agriculture to solve by "coordinating a nationwide rural development program utilizing the services of executive branch departments and agencies and the agencies, bureaus, offices, and services of the Department of Agriculture in coordination with rural development programs of State and local governments." No special tools were given to the Secretary to implement this mandate. Past efforts to insure coordination consisted largely of advocacy of rural interests with other agencies, service on interagency coordinative bodies (at one point, the Rural Development Service participated in over 30 interdepartmental and intradepartmental task forces concerned with programs bearing on rural development), and services to some State and local governments who needed assistance in dealing with Federal agencies involved in rural activities. Many of the institutional entities created to implement section 603—that is, the Assistant Secretaries Working Group, and the State rural development committees—functioned as discussion groups, with no problem-solving capabilities.

The current administration is working to strengthen the coordination process by identifying specific problems which can be presented to the Assistant Secretaries Working Group or the State rural development committee for action. Task forces are currently working on housing, transportation, and economic development. Rural health and rural water and sewer initiatives have already been developed and announced. The rural health task force, on October 2, 1978, announced new cooperative procedures in three existing programs operated by the Departments of Agriculture, Labor, and Health, Education, and Welfare. The procedures are designed to expedite the construction of rural primary health care facilities, as well as increase the supply of rural preventive and health support staff and promote the recruitment and retention of rural health professionals.

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[51] Carlson, William A. "New Federalism * * *," p. 66.

[52] U.S. Department of Agriculture. "Rural Development Goals: Third Annual Report of the Secretary of Agriculture to the Congress." Washington, U.S Government Printing Office, 1976, p. 27.

[53] U.S. Advisory Commission on Intergovernmental Relations. "Nonmetropolitan Growth * * *," p. 214.

On December 1, 1978, the results of the Water and Sewer Task Force's activities were announced. The findings of this task force led to interagency agreements involving the water and sewer programs of the Environmental Protection Agency, Farmers Home Administration, Department of Housing and Urban Development, Economic Development Administration, Department of Labor, Council on Environmental Quality, and Community Services Administration. The coordination and service delivery agreement includes the following major features:[54]

Emphasis on alternative and innovative technologies in rural areas.
Single determinations of compliance with Federal laws.
Coordination procedures for facility plan reviews.
Common criteria for identifying high cost projects.
Establishment of a joint agency data base for needs assessment.
A pilot demonstration of other administrative simplification measures.
More efficient use of the A-95 process.
Periodic regional meetings of water/sewer agencies.
Manual on available assistance and how to apply.
Joint agency training seminars.

The interagency effort also produced an agreement between EPA and DOL to conduct a pilot program for training 1,000 new workers in water and waste-water treatment occupations, and to upgrade the skills of approximately another 750 workers presently employed in the field. Finally, EDA, EPA, HUD, and FmHA agreed to provide $2.8 million for fiscal year 1979 to support the national demonstration water project.

Some critics of the present Federal rural development delivery system believe that coordination will never work, and that more basic, systemic changes must be made if the system is to function effectively. Proposed solutions run the gamut from consolidating or standardizing administrative requirements related to grants, to consolidating categorical grants into block grants, to consolidating related programs into a single agency (existing or new), to creating a White House entity to oversee the operations of Federal rural development programs, to some combination of these alternatives. Legislation proposed in the 95th Congress and summarized below offered variations on these themes.

The Small Communities Act of 1978 (S. 3277) would have provided a procedure for consolidating grants, and would have simplified the administrative requirements that accompany most grants, requirements that range from citizen participation procedures to auditing methods. It would also have provided for the allocation of a single cash grant to small communities in lieu of grants presently received. The Rural Development Consolidation Act of 1978 (S. 3298, H.R. 13566) would have transferred to the Department of Agriculture the functions of the Economic Development Administration and the nonmetropolitan portion of the community development block grant program. The Rural Development Coordination Act of 1978 (S. 3297) and the Rural Development Policy Act of 1978 (H.R. 10885) proposed alternative procedures and institutional arrangements for developing and implementing a national rural development policy. While none of these proposals were enacted, most of them are likely to be reintroduced. These legislative proposals, added to the recommendations from various administration study groups (e.g., White House Reorganization Project Community and Economic Development Study, HUD Task Forces on Small Cities and Rural Areas, USDA's paper on Rural Development Policy Issues)[55] offer a varied menu of rural development policy selections. The various questions that must be considered in designing a Federal rural development strategy were summarized by USDA as follows:[56]

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[54] U.S. President, 1977—(Carter). "Making Water and Sewer Programs Work; the White House Rural Development Initiatives. Washington, The White House, 1978, pp. 3-7.

> (1) Aside from the organizational changes, how can Federal economic development efforts be made more effective?
>
> (a) Should the current mix of Federal assistance among human resource investments, public facilities (infrastructure) investments, and private sector incentives be changed?
>
> (b) What additional mechanisms to encourage private sector job creation in rural areas should be adopted?
>
> (c) How can Federal economic development efforts be better targeted on the rural disadvantaged; especially Indians, poor blacks, and Hispanics?
>
> (2) What organizational changes would contribute to a more effective economic development effort?
>
> (3) How can specific meaning be given to the Federal concern to assure access to minimum acceptable levels of essential facilities and services to all rural residents?
>
> (a) What are the *essential* facilities and services, recognizing not only people's needs but likely budget constraints?
>
> (b) What kind of a process would contribute to establishing useful and meaningful minimum levels?
>
> (c) Should specific quantitative goals and criteria for targeting Federal resources be adopted?
>
> (4) How should the Federal Government contribute to building an improved institutional capacity to deal with rural development issues?
>
> (a) What are the options for providing a Federal organizational and policy focus for rural development?
>
> (b) What should be the role of Federal, State, and local governments in the planning and implementation process of programs for rural development?

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[55] The White House Reorganization Project completion date is undetermined at this time. The HUD Task Force on Rural Areas released its report in July 1978: the report of the Task Force on Small Cities is in preliminary draft. The USDA report on rural development policy issues was released in October 1977. For summaries of these reports and up to date coverage of these policy studies, see Congressional Research Service Issue Brief No. 77113, Rural Development: The Federal Role.

[56] U.S. Department of Agriculture. Rural America, Poverty and Progress; Rural Development Policy Issues. Washington, 1977, 14 p.

(c) What position should the administration take with regard to the multistate regional commissions and multicounty substate districts?

(d) What should be the role of nongovernmental public interest organizations?

State role in rural development

The States play a dual role in the intergovernmental rural program delivery system. On the one hand, they may serve as middlemen in the Federal rural delivery system, with varying degrees of authority and responsibility over the Federal programs operating in the States. On the other hand, the States may operate rural programs of their own; and they have great potential in the design of the local rural governmental landscape, though few States have exercised these powers.

The States' role in the design and delivery of Federal rural assistance became especially controversial during the Nixon administration. In 1970–71, the direction of Federal policy for rural development was the subject of much debate, with the administration and the Congress taking opposing views. The administration proposed that certain existing rural development programs be consolidated into a single rural development revenue sharing program, in which funds would be allocated to the State according to a formula. The specific use of the funds would be determined at the State level. Refusing to accept this approach, Congress enacted instead the Rural Development Act of 1972, which expanded and added to the existing rural development process and used the Farmers Home Administration to carry out the major programs. Thus, federally funded rural development programs would be implemented by Federal rather than State officials as would have been the case with rural development revenue sharing. When the administration attempted to use program regulations implementing the new act to delegate decisionmaking for rural development to the States, the Congress expressly prohibited the action: "No grant or loan authorized to be made under this act shall require or be subject to the prior approval of any officer, employee, or agency of any State." [57]

Among other things, the Rural Development Act required the Secretary of Agriculture to establish rural development goals for employment, income, population, housing, and quality of community services and facilities and to report to Congress annually on progress in attaining such goals. Here again, the Nixon and Ford administrations tried to devolve responsibility to the States on the grounds that "To arbitrarily set specific goals at the Federal level implies a centralization of Federal control and depth of Federal wisdom and capability that is at variance with this administration's philosophy of fostering a more decentralized government." [58] Instead, the administration argued, such goals should be derived by a process through which local and State goals would filter up to the national level, thereby becoming national goals.

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[57] Agriculture and Consumer Protection Act of 1973 (P.L. 93–86, 87 Stat. 241).

[58] U.S. Department of Agriculture, "Rural Development Goals: Second Annual Report of the Secretary of Agriculture to the Congress." Washington, 1975, p. 1.

The current administration also stresses the potential role of the States in fashioning and implementing a national rural development policy, but it emphasizes that this will require effective leadership by the governor and an adequate State policy management staff to work with State agencies and outside groups. The neglect of State and local institutional capacity was identified in USDA's rural issues paper as one of the major weaknesses of Federal programs. The report concludes:[59]

> A critical requirement for effective policy and action at the State level is to involve all relevant State agencies, substate regional organizations, and the elected leadership of counties and cities in the process from the outset. From the rural development perspective, at least, States need the equivalent of a governor's development council in which rural is an important dimension. The role of the council would be not only to bring together the State policymakers to decide on development issues, but also to build a constituency for the adoption and implementation of a development plan and program for the State. Effective leadership by the governor is essential and this, in turn, requires that he or she have access to an adequate policy management staff to work with the State agencies and outside groups.

Early in 1978, Assistant Secretary Mercure wrote to each of the Governors, indicating the Department's support for the preparation of State development strategies, expressing a willingness to assist in the development of investment strategies for rural areas to help implement their priority needs, and offering to target USDA programs to respond effectively to the State development strategies. Most Governors responded by designating a staff member to work with the State FmHA director to develop the new procedures. State participation is also being stimulated through the awarding of 12 section 111 grants in the amount of $540,000 to be used to boost State development of investment strategies for rural areas. In addition, the States of California, Colorado, Illinois, and West Virginia are participating in a joint HUD/USDA demonstration designed to demonstrate improved delivery of rural housing and community development programs through State governments.[60]

State rural development committees were established by the previous administration as the principal mechanism for coordinating USDA activities within a State, with each other and with other Federal or State-initiated rural development activities. The committees were comprised of senior officials of USDA agencies and included, at a minimum, representatives of each of the following agencies:

Agricultural Stabilization and Conservation Service.
Farmers Home Administration.
Forest Service.
Rural Electrification Administration.
Soil Conservation Service.
State Cooperative Extension Service.

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[59] U.S. Department of Agriculture. "Rural America: Poverty and Progress; Rural Development Policy Issues." Washington, 1977, p. 12.

[60] "HUD—USDA Rural Demo: Early Implications." COSCAA Actions Special Report. Washington, Council of State Community Affairs Agencies, Apr. 1978, 5 p.

Each committee was authorized to enlarge its membership as it saw fit, and some chose to include representatives of State government and other agencies interested in rural development. Each committee elected its officers and developed its own operating procedures. The primary coordination techniques utilized by the committees were information exchange and education among agencies. There was no formal mechanism for overcoming duplication of services or for reconciling conflicting agency objectives, even among the USDA agencies operating in the State, let alone the other Federal and State agencies with an impact on rural development.

At present, efforts are under way to strengthen this committee structure as a tool in the coordination of USDA filed activities. The goal is to create committees that can:[61]

Support the Governor's rural development policy management structures;

Assist in targeting USDA interagency rural development activities in accord with State and local policies and priorities;

Support the State-designated substate planning and development agencies; and

Assist local governments and community development organizations to plan and implement programs and, where needed, to obtain the support of the State-designated areawide planning and development districts.

States are becoming increasingly aware of the impact on statewide developmental patterns of State activities which were not expressly aimed at development. For example, a study of growth policy in Massachusetts analyzed the impact on development of seven State investment programs and one regulatory program. The investment programs included school building construction, school transportation reimbursement, highway construction, development of recreational resources, wastewater facilities construction, economic development, and low to middle income housing. The analysis revealed that the cumulative, unanticipated consequences of these programs included the promotion of fringe rather than central development, the use of unnecessarily large tracts of land, the treatment of energy as an inexpensive and readily available commodity, and placing a low priority on the maintenance of existing town centers.[62] These same programs could have been implemented in accordance with a State growth policy in order to guide development in other directions. The tools that could be used by a State in support of rural development include the power to:[63]

Tax and spend;

Promote and protect the public health, safety, welfare, and morals (police power);

Establish educational, recreational, correction/penal, and eleemosynary facilities;

Own and operate economic enterprise (proprietorship);

Supply various services in the public interest;

Establish the structure, powers and manner of exercise of powers by local governments and other public corporations;

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[61] U.S. Congress. Senate. Committee on Agriculture, Nutrition, and Forestry. "Rural Development Oversight * * *" Apr. 25, 1978, p. 65.

[62] Massachusetts. Office of State Planning. "Toward a Growth Policy for Massachusetts." (Draft) Boston, 1975.

[63] Council of State Planning Agencies. "State Developmental Strategies * * *," p. 17.

Take private property for public use upon payment of just compensation (eminent domain);

Define rights of ownership and rights and methods of transmission of property;

Establish organizational forms for private sector enterprise; and

License and regulate businesses, trades, professions, and labor in their local aspects.

Substate regional organizations

Experimentation in developing new institutional capacity for the planning and delivery of rural development programs has been particularly active at the substate level. The main thrust of this experimentation has been to establish multijurisdictional agencies (usually multicounty), which are expected to have greater capabilities than single units of government acting alone. The rationale for these efforts was summed up as follows by the Department of Agriculture and the Department of Housing and Urban Development:[64]

> Substate regional planning and development districts help induce growth and plan for its ultimate effect by pooling the resources of a number of municipalities and counties, realizing that neighboring communities often share the same development handicaps. These areawide organizations pull together the meager resources of the individual communities to attract further State and Federal assistance. The pooling effort also has a further benefit for depressed rural communities. The expertise available to improve economic conditions in growth centers is usually applied regionwide. Today's regionally oriented efforts insure that even the most remote area benefits, if it chooses.

At present, there is no coherent national policy regarding the establishment of substate regional agencies. Each agency tends to organize areawide entities according to its own needs (for example, economic development districts, local development districts, nommetropolitan planning district), and legislation also takes this functional approach. Consequently, the same area may be served by several different substate district organizations, some delineated by the State, others delineated by various Federal agencies. The 1977 Census of Governments counted a total of 1,569 substate regional organizations. The Advisory Commission on Intergovernment Relations paints this substate picture:[65]

> It is not uncommon, for example, to have a regional council which may, but will not necessarily, have the 701, the A-95, the transportation, the economic development, and the rural development planning functions, but then to have in that same region a separate health system agency, a separate law enforcement planning agency, a separate CETA prime sponsor, or a balance of State agency in a rural area, a sep-

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[64] U.S. Department of Housing and Urban Development and U.S. Department of Agriculture. "Financial and Technical Assistance Provided for Nonmetropolitan Planning Districts in Fiscal Year 1975." Washington, U.S. Government Printing Office, 1975. p. 9.

[65] Testimony in U.S. Congress, House, Committee on Banking, Finance and Urban Affairs, Subcommittee on the City. "Small Cities * * *" Hearings, p. 124.

arate area agency on the aging and a separate resource conservation and development committee.

ACIR has identified 33 separate federally supported areawide programs, of which 30 are available in smalltown and rural America.

Funding for the agencies tends to be tied to categorial grants which determine the functions of the agency. Membership requirements for the governing boards vary from program to program, with some programs emphasizing functional representation, such as health personnel, others emphasizing business and agricultural representation, and still others emphasizing locally elected officials and/or citizen participation. These varying funding and membership requirements make it difficult to put together a single multijurisdictional agency which can meet all of the requirements.

Both the States and the Federal Government have been ambivalent about the development of substate organizations. Though both levels of government have found the substate units to be useful in implementing programs, neither has encouraged the units to become truly viable, self-sustaining entities. In part, this may be because there is reluctance to tamper with the traditional Federal-State-local system of governments by creating a new layer that was not envisioned by the Founding Fathers and, in so doing, usurping (or appearing to usurp) the authority of the traditional governmental units. There is a belief on the part of some that the substate units, far from improving the delivery of Federal programs, simply add another layer of bureaucracy and redtape to be dealt with.

Those who see regional organizations as the best hope for improving the management and technical capabilities of nonmetropolitan governments recommend the adoption of an explicit national policy with regard to such organizations. The Intergovernmental Coordination Act of 1977 (S. 892, H.R. 4406) would have established such a national policy; a House subcommittee held hearings on this legislation in the spring of 1978,[66] but no further action was taken. The bill would provide for—

(1) designation by the Governor in cooperation with local governments of a prime regional council in each substate district;

(2) development by this designated regional council of a coordinated work program for all of the areawide Federal aids in the area; and

(3) development of coordinated regional strategies in the area, with which future Federal aid would be consistent.

The States, which are ultimately responsible for the design of the local government systems in the United States and which provide the enabling legislation under which substate units of government are organized, have a variety of options from which to choose if they decide to strengthen these new organizations. The options include the following possible actions:[67]

Requiring all local governments to belong to substate districts and providing State funding in partial or full support of activities in the State interest (perhaps to support planning and programing inputs into State planning and budgeting processes and intergovernmental coordination in line with State plans);

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[66] U.S. Congress. House. Committee on Government Operations. Subcommittee on Intergovernmental Relations and Human Resources. Hearings in press.
[67] Council of State Planning Agencies. State Development Strategies . . ., p. 15.

Conferring enhanced legal status on substate districts as agencies of local government (perhaps with power to resolve local differences and review and approve policies of otherwise freestanding special districts);

Utilizing substate districts as the basis for decentralization of State government operations (perhaps delegating program authority for certain functions);

Petitioning the Federal Government for integrated grant arrangements through State government for areawide planning on a multiyear basis; and

Pressing the Federal Government for full implementation of Part IV of Office of Management and Budget Circular A–95 to place single-purpose federally supported areawide organizations in line with State-established systems of umbrella multijurisdictional organizations (i.e., multipurpose regional bodies).

The Farmers Home Administration has expressed an interest in developing "* * * an organized set of institutions to work with which can set some priorities and develop and implement some innovative programs."[68] Rather than create new districts, however, FmHA plans to rely on State-delineated districts wherever possible, and to make FmHA boundaries coterminous with these districts. In these areas, as well as in areas where the district delineation is not so well defined, FmHA plans to encourage substate districts to:[69]

> Identify local needs, set priorities, and develop strategies and programs to meet these needs . . . Where possible, these investment plans will include integrated program packages from a variety of funding sources. However, they will also include individual programs to meet priority needs in the district which can be used to guide the investment of Farmers Home funds. Steps will be taken to strengthen the A–95 process so that Farmers Home can give priority treatment to loans directly addressing a district plan priority and can insure that loan applications which don't directly address a district plan priority are consistent with that plan or at least don't conflict with it.

The Farmers Home Administration is also using planning funds from the area development assistance planning grant program (sec. 111) to provide direct financial assistance for substate rural development planning. Sixty-six percent of the fiscal 1978 funds were allocated to multicounty organizations.

Concerted services in training and education

One of the greatest benefits provided by multicounty organizations to local units of governmental is technical assistance in the use of Federal programs. In fact, ACIR has found that a major differentiation between metropolitan and nonmetropolitan areawide organizations is that nonmetropolitan agencies are more oriented toward providing direct assistance to small local governments, while metropolitan organizations focus on the coordination of large and highly capable local units.[70] The concerted services in training and education program (CSTE) represents another model effort to improve Federal program delivery at the local level by providing technical and other assistance.

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[68] U.S. Congress. Senate. Committee on Agriculture. Subcommittee on Rural Development. "Rural Development Oversight . . ." Hearings, April 25, 1978, p. 65.

[69] Ibid.

The CSTE program was established under the authority of Executive Order 11122 which created a cabinet-level rural development committee. The committee, in 1965, proposed the establishment of an 18-member interdepartmental task force, whose primary focus was on education, training, and job development. The task force, established under the name of concerted services in training and education, was headed by an executive committee composed of representatives of the Departments of Agriculture, Labor, and Health, Education, and Welfare. A primary objective of the task force was:[71]

> To develop general operational patterns for concentrating all of the available departments and agencies and available resources on the alleviation and ultimate solution of occupational education problems, and, as necessary, on the health, welfare, socioeconomic, and related problems of those residing in the pilot communities.

The primary instrument of the CSTE program has been the local coordinator, who was employed in each demonstration area to work with local community leaders and with officials of local, State, and Federal agencies. In setting up a project, a small task force representing the various Federal agencies met with a committee appointed by the Governor of the State involved. After these meetings, the State committees recommended counties for potential demonstration projects. County leaders from these areas were then invited to meet with the Federal and State committees to discuss the needs of the community. If it was decided to go ahead with a concerted services project, a local coordinator (usually a resident of the area) was employed to work with local leaders, citizen groups, and representatives of the Federal, State, and local agencies responsible for administering community programs.

The coordinator's salary—the program's only expense—was paid from funds made available to the national CSTE task force by the participating departments, and by the States. Costs for the local administrator's salary and related expenses averaged about $30,000 per area.

As the program expanded over the years, its original focus on vocational education and job placement in the community also expanded to include coordination of a number of related community development activities determined by the needs and priorities of a particular locale. The CSTE coordinators became catalysts for and initiators of numerous other programs to help local areas to begin to develop their economic, natural and human resources.

CSTE differed from most Federal rural development efforts in that it was a process, not a program. Evaluators of and participants in

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[70] U.S. Congress. House. Committee on Banking, Finance and Urban Affairs. Subcommittee on the City. "Small Cities . . ." Hearings, p. 133.

[71] U.S. Congress. House. Committee on Agriculture. Subcommittee on Family Farms and Rural Development. (CSTE Area Definition. Employment). Hearing. 94th Congress. 1st session. October 28, 1975. Washington. U.S. Government Printing Office, 1976. P. 28.

CSTE have isolated certain characteristics which distinguish CSTE from other approaches to rural development:[72]

Interdepartmental structure.—"By being both funded and administered on an interdepartmental basis, concerted services coordinators have been able to cross agency boundaries in order to bring together program resources. Because they represent no single agency, and they have no coercive powers over local people, the coordinators do not pose a threat to agency administrators."

A local knowledgeable.—"Recruited locally, they have possessed a high level of knowledge and understanding of local community needs. It is important that the coordinator be an insider, one who knows who can do what, in the local community."

External reference groups.—Ties to the Federal task force provide coordinators with a considerable amount of knowledge about the latest program developments and with key contact persons in the various agencies. They also give the coordinator a "broader perspective enabling him to better see what is and what can be."

Flexibility and independence.—The coordinators have much more flexibility and independence in pursuing local objectives than agency personnel tied to categorical programs, and are free to respond to whatever local needs are most pressing.

Reward system.—The coordinators reward system, unlike that of established agency representatives, is such that they are positively sanctioned when they implement something new. Furthermore, although they need positive rewards from the local community, they cannot be absolutely negatively sanctioned locally.

Legislation introduced in the 94th Congress (S. 1807, H.R. 7159) would have made the CSTE task force permanent, located it within the Department of Agriculture, and authorized the appropriation of $4.5 million to fund the program. The administration opposed the legislation on two grounds: that CSTE had worked successfully under the Executive order authority, so that legislation was not necessary, and that new funding sources were not necessary since the States could, if they wished, fund CSTE projects with CETA funds. Others supported the idea of giving greater permanence to the CSTE approach through legislation, but opposed the idea of placing the task force in the Department of Agriculture since that might weaken one of the greatest strengths of CSTE—its relative independence which gave it greater flexibility. The legislation was not enacted, and was not reintroduced in the 95th Congress.

The current administration has shown little support for the CSTE concept. The task force is virtually moribund, and the only two active CSTE projects are being funded through CETA. CSTE's future fate is uncertain, as testimony in April 1978 revealed:[73]

> The problem we faced, in responding to CSTE, is that it started off as a national program but then was decentralized, as CETA itself was decentralized, so that now most of the

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[72] Ibid., p. 77. See also, U.S. Congress. Senate. Committee on Agriculture and Forestry. Subcommittee on Rural Development. "Medical Facilities, Concerted Services, and Employment Projects in Rural Areas." Hearing, 94th Congress, 1st session, July 21, 1975. Washington, U.S. Government Printing Office, 1975, p. 81.

[73] U.S. Congress. Senate. Committee on Agriculture. Subcommittee on Rural Development. "Rural Development Oversight * * *" Hearings, Apr. 25, 1978, p. 28.

CSTE programs that exist receive funding from State or local prime sponsors. And the issue we face is whether we want to continue to encourage the project to move in that direction or whether we want to reverse that trend and reestablish CSTE-type projects as a national program.

CONCLUSION

This paper has attempted to describe the various internal and external constraints on local rural development efforts, to describe the current intergovernmental delivery system for rural development programs, and to identify some alternative approaches to improving the system. Rural institutions in the 20th century must deal with increased demands for public services, rapid technological change, the growth of national institutions and weakening of local institutions, increased interdependency among the various components of modern society, and new stresses and strains brought on in some cases by rapid growth and development, in other cases by continued economic and social decline. The local governments that must deal with these circumstances are numerous but small, and are usually directed by part-time officials who must manage without assistance from personnel with professional training or technical skills.

A review of the literature on Federal attempts to act as a change agent in rural settings indicates that for a variety of reasons these efforts have not been successful. In part, this is because of local attitudes and beliefs which inhibit national policy implementation. Programs which require identification of needs, establishment of explicit goals, and a planned program for change will be unacceptable to the participants of many rural political systems, who may very well thwart all such attempts. They can do this very simply by refusing to apply for Federal assistance. In this age of general revenue sharing, however, few local governments remain untouched by contacts with the Federal Government.

Other assessments of Federal programs for rural areas suggest that they have not been entirely successful because nationally set regulations, requirements for funding assistance, and the setting of minimum service levels may not jibe with local needs or local capabilities. This may make it impossible to generate local development strategies that are consistent with local expectations.

Rural community leaders, in their dealings with the Federal Government are sometimes put off by what they perceive as attitudes of impersonality and inflexibility. Many local communities which have mobilized a rural community development process and which seek Federal assistance in meeting local goals find that the fragmentation of Federal rural development programs and policies created a barrier to progress and a constant source of frustration.

Federal policymakers cannot remake the map of local rural governments, nor can they immediately affect the local political and philosophical constraints which might hamper local rural development efforts. However, there have been suggested ways in which the Federal rural development process might be changed to make it more usable to local officials in rural areas. Rural needs and concerns might be more clearly understood if each major agency were to have an office of rural affairs or, alternatively, if there were a separate agency for rural development which would operate rural programs now scattered throughout the Federal Government. The Council for Rural Affairs in the White House could be reviewed, and the responsibility for coordinating Federal rural development efforts could be placed in that office. The current administration is trying to improve the program delivery system by using top-level, low-key White House encouragement of program coordination in specific functions (health, water and sewer, housing, transportation) through interagency agreements. Legislative proposals described in this paper offer a variety of approaches to improving Federal rural policymaking and program delivery, and various administration study groups are making recommendations.

At the subnational level, States are being encouraged to participate in Federal rural program delivery in several programs, and all Governors have been invited to participate with the Farmers Home Administration in developing and implementing rural development investment strategies for their State. The States also are ultimately responsible for the structure of rural local governments, and any major modernization of these governments must be directed and enforced by the States. It is generally held that the States have a potentially strong, but thus far unfulfilled, role as important actors on the rural development stage.

Below the State level, Federal policymakers might work toward strengthening existing federally encouraged and supported multicounty agencies in order to supplement the technical and managerial capabilities of rural local governments. The Federal Government might also strengthen the CSTE approach through legislation which would permanently institutionalize the program, and provide funds for its expansion.

It is a finding of this paper that the institutional arrangements that affect and are affected by rural depelopment have a significance for national rural development policies that may be as great as levels of funding or program expansion. There is little point in making programs available if the cost of gaining access to program benefits is greater than the benefits received, or if information regarding the programs is not made available. For example, Federal mass transit assistance in nonurbanized areas has not been extensively used by small communities partly because of a belief that Urban Mass Transportation Administration (UMTA) grant application procedures and requirements are too complex, and partly because of the absence of knowledge about available UMTA financial assistance.[74] A small community may not have the luxury of scattering applications to multiple funding sources in the hopes that one may hit the target, because the time and money involved in the grant application process may be too great:[75]

> [Elk Town Township, Sanilac County, Mich.] has paid more than $3,000 to a consultant to prepare these applications. They feel the applications are done properly, but cannot afford to continue to

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[74] U.S. General Accounting Office. "Need for More Federal Leadership in Administering Nonurbanized Areas Public Transit Activities." (CED-78-134; July 1978) Washington. U.S. Government Printing Office. 1978, p. 3.

[75] U.S. Congress. Senate. Committee on Government Affairs. Subcommittee on Intergovernmental Relations. Small Communities Act of 1978. Hearings, 95th Cong., 2d sess. S. 3777, Aug. 2, 1978. Washington, U.S. Government Printing Office, 1978, p. 19.

pay for such a service with no hope of victory. They do not plan to file again. They feel that the procedures and forms are too complex to do it themselves. There is not enough information available anywhere about how to apply for grants or especially about how likely they are to succeed if they do apply.

The process of rural development is as important as the various programmatic elements that go into it. Unless more care is given to making the process work, at all levels of government, progress toward national rural development goals will be slower than hoped for, particularly in this time of austere budgets. The inventory of approaches to improving the Federal rural development process presented in this paper are not exhaustive, nor is any one approach endorsed as the ultimate solution. It is offered primarily to stimulate discussion and interest in the process of rural development as opposed to the various programmatic elements of rural development.

APPENDIX

RURAL COMMUNITY RESEARCH AND DATA NEEDS[1]

ABSTRACT

A context for the discussion of research policy is established by illustrating the inherent difficulties in defining rural constituencies and communities. It is suggested that the lack of rural solidarity helps to explain rural research oversight. The visibility of rural issues is itself inherently a political problem. Two dimensions of the oversight problem are explored. Initially, intrinsic factors, such as orientation toward research at the rural community level, are identified and explicated. Second, extrinsic factors, for example, external pressures for public accounting, need identification and issue clarification, are briefly discussed. In conclusion, recommendations which respond to both the intrinsic and the extrinsic factors are presented.

INTRODUCTION

Policy oriented exploration of rural community research must initially establish a context from which to operate. Discussion perimeters need to be identified so that subsequent identification of data needs and accompanying recommendations are bound by a rational and recognizable framework. Moreover, such basic clarification of direction is doubly important here, because, as we shall see, much confusion exists concerning the specific nature of the context: rural areas and rural communities. This confusion is causally related to the emergence of the critical questions which indicate that rural research oversight exists.

Briefly consider the critical questions: What constitutes rural? What is a rural community? Community research for what purpose? Data collection reflecting what audience need? Information for what ends? The very diversity reflected by answers to these basic questions illustrates the lack of clarity engendered by the topic at hand.

No single rural definition or consistent set of criteria currently prevail at local, State, and national levels. Among the many definitions currently in use, the most conservative sets the rural population at just 18.5 percent of Nation's total. On the other hand, the most liberal definition, "outside urbanized areas," establishes the Nation's rural population at some 41.7 percent of the total—see basic Bureau of the Census documents and Sher, 1978:5. A recent HUD study of rural definitions in statute and case law finds over 30 different criteria employed. The conclusions? Definitions of rural areas are cloudy at best. But what about rural communities? Does introduction of the term "community" lend clarity?

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NOTE: The paper "Rural Community Research and Data Needs" is not a part of the study prepared by the Congressional Research Service, but was submitted by Senator Leahy as a useful addition to this committee print.

Historically, the term "community" has had two distinct meanings. One is the notion of the spatially bounded community. The other is the community created by like-minded people. Unbounded by areal space, this latter definition reflects sentimental attachment between social actors bonded by similar perspectives on the world. Initially, consider the spatially bounded, political, and administrative community from a rural perspective.

"Local jurisdiction" is one appropriate synonym for the notion of the spatially bounded community. At first glance it would appear that this is a useful theme. Some two-thirds of all "places," or communities, in the United States were rural and had populations under 2,500 in 1970. However, one in five rural Americans do not live under the jurisdiction of a local community; these are "open country" folks who reside in unincorporated places under county jurisdictions. Even in New England, where local communities prevail, an attempt to create conceptual closure on this type of rural community is frustrating. We have, on the one hand, the traditional political entities such as gores, grants, plantations, towns, townships, villages, boroughs, reservations, and so on through a bewildering array of community types with varying degrees of local attachment and jurisdictional capacities. Newer, functional jurisdictions also reflect properties symbolized by the term "community." In naming only a few, consider the crosscutting territorial claims of health service sheds, school systems, planning areas, and police, highway, water, and utility districts. It is clear that one must come to grips with which community, what function, who, and where, in dealing with just the—seemingly—simplistic spatial dimensions of the rural community.

In a less confining sense, the community of sentimental bond has been suggested as capable of bringing closure to the definition of what is typically rural. However, even here, the rural audience is represented by a diverse number of bonds. They are ethnically scattered from the native American community, through the traditional American minorities "of color," to those rural Americans, who, though pale in skin color, have survived to the present on the strength of old world traditions. In rural New England, these latter include German, Irish, Russian, Italian, and French enclaves, as well as the enduring "Yankee mix" so famed in lore and legend.

While encroachment of mass society—the media, centralized schools, interstate highways, and the like—have made distinct impacts upon rural life, ethnic and occupational heterogenity are still critical factors in defining the rural constituency. The workday suggests yet another area which resists the homogenous urban trends. The occupational mix in New England's rural areas run the gamut of the national experience. Over 94,000 New Englanders comprise the farm population, while other traditional employment includes fishing, mining, timber, forestry, and related extractive industry workers. More recent rural employment has occurred in higher education, recreation and tourism, and, yes, in retirement communities. All these activities defy a common work day experience.

Thus, even the most general answers to the broad questions concerning research on what rural constituency suggest the inherently difficult contextual problems faced by researchers and would be analysts of the rural scene. When contrasted with the relatively greater homogenity of urban Americans, especially in terms of a similar work day and greater spatial correspondence of administrative and service function in the city, the failure of the rural sector to engender a sustained and focused commitment from researchers is understandable. The marriage of a broad research agenda with the concerns of urban Americans has clearly resulted in a disproportionate command of national attention. This is dramatically evidenced in the recent articulation of a national urban policy and widespread recognition of the "urban crisis." By contrast, rural Americans have suffered from their lack of solidarity and, with the possible exception of the food and fiber production sector, have not benefited from any sustained relationship with the research community.

With these context setting observations in view, further comments here focus upon the intrinsic need for rural people to "know more" about their collective selves and common problems. It will be implicity argued that the development of such knowledge and, subsequently, greater awareness, may well contribute to the creation of greater political solidarity among rural people. Second, discussion will elaborate upon some of the extrinsic (or external) reasons that rural constituencies must mobilize research resources in order to gain an equitable part of the Federal outlay. Finally we turn to elaborate recommendations which will facilitate research activities at both the intrinsic and extrinsic levels.

INTRINSIC FACTORS: INFORMATION FOR THE SAKE OF KNOWING

"We have discovered how to ask some important questions, and now we really do need, as an urgent matter, for the sake of our society and its culture, to obtain some answers. We now know that we cannot do this any longer by searching our minds, for there is not enough there to search, nor can we find the truth by guessing at it or by making up stories for ourselves." Dr. Lewis Thomas, 1978: p. 45.

At the risk of blatenly promoting research, consider the full implication of Dr. Thomas' comments. Simply put, Americans in general are woefully ignorant of the role we, human beings, play in the larger sociopolitical, economic, and environmental systems in which we participate. While this society has obviously come a long way in terms of basic literacy and technical know-how, we simply do not know enough about our collective selves. In no sector of American society is this ignorance more pronounced than in rural areas. A number of factors have combined to create this current state of affairs.

Prime among these factors is a prevailing antiempirical, and thus antiresearch, sentiment of many rural people. This orientation seems to be based upon the notion that the essence of rural life, as well as the illusive philosophical underpinnings of the concept, community, cannot be reflected by research findings "don't dazzle us with statistics" is a prevailing response of rural activists. In part, this orientation emerges from a Currier and Ives mythology perpetuated by humanists, journalists, and qualitatively oriented social scientists. The work of these scholars has contributed to an image of rural life as simplistic, rustic, and at all costs, somehow more natural than life elsewhere. The so-called naturalistic dimension of rural mythology has been implicitly associated with a component of the agrarian creed which emphasizes farm life as one where the self-employed, inner-directed human being struggles against the natural elements (Reisman, 1961). Thus, the rural American is presumed to conduct his affairs in a hostile natural environment, unfettered by excessive linkage to other human beings and to those intricate sociopolitical webs.

Emerging from that rural mythology is a distinct "anti-big," decentralist ideology; an ideology which implicitly assumes that data are inextricably tied to the massive, impersonal, and self-perpetuating corporate and governmental institutions. In short, quantitative research activity is linked with the perceived corruptness of large scale institutions. It is viewed as just one more dehumanizing activity conducted within the confines of urban dominated bureaucracies.

Obviously, time prohibits an exhaustive exploration of many other factors relevant to analysis of these intrinsic factors which influence rural receptivity of research. However, one must note that partial responsibility for a rural world view which rejects the potential for research lies with the research community as well. Those who occupy these technical roles have done little to dissuade existing rural interpretation of their activity. Unlike urban areas where activists seem to inherently understand the importance of developing cogent, empirically based definition of local situations, and therein firmly establish issue boundaries, rural people have not been prepared to digest information which so often radically challenges the prevailing (and comforting) countryside mythology. Given the urbane and sophisticated orientations of those who occupy research and analytical positions, it is highly unlikely that they are the best equipped to carry out critical, communicative activities with rural peoples.

When articulated before a local audience, the most straightforward and useful descriptive rural research is likely to be received with considerable skepticism. Activity which moves beyond simplistic need description to more sophisticated, and thus, intangible, institutional evaluation, program impact, and even public accountability is often viewed as reflecting the redtape imposed from above. Seemingly, such information has little utility in the immediate pursuit of tangible goals and direct change.

Researchers and others engaged in any aspect of rural study must be aware of two further phenomena. In the first place, documentation of basic trends and current phenomena in rural areas has been far from systematic or complete. When contrasted with the plethora of urban studies, rural research is downright sparse. Consider, for example, the status of the following rural research shopping list.

1. No base line, subcounty profiles exist which cross-tabulate rural life quality conditions for the elderly, minorities, low income, small farm, or households headed by women.

2. No systematic information exists concerning land ownership or land management practices in rural areas.

3. No accurate estimates of small town and open country unemployment or underemployment currently are collected.

4. No detailed information can be found concerning the 20 percent of America's small farmers.

5. Virtually no information at a subcounty level is available on a systematic basis concerning the "new" migrants to rural areas who constitute the much heralded "Rural Renaissance" of the 1970's.

6. Absolutely no background information exists concerning the differentials between urban and rural service delivery costs.

7. Little information sensitive to rural cost-of-living indices is currently available.

8. No comprehensive treatment of rural credit availability can be found.

9. It is impossible to assess the delivery capacity of rural educational systems because no systematic substate data on rural education can currently be located.

10. And finally, governmental analyses of Federal program outlays are extremely limited in their ability to demonstrate local, rural allocation.

Now, this disappointing list leads to a second observation: the lack of systematic research activity has been partially responsible for the underdeveloped research tradition in rural areas. The utility of careful empirical analysis has not been emphasized, simply because there has been so little work of much utility.

Related, in part, to the lack of a research tradition, is the fact that rural people and their representatives generally do not differentiate between the many different types of research. Accounting, the conduct of town business, tax records, opinion surveys, demographic profiles, market studies, are all extremely diverse research areas employing a variety of different skills. However, in rural America they are usually perceived as an undifferentiated activity, part of the proverbial "black box," mysteriously conducted by agents of the central city and government. Moreover, there has been little opportunity for rural inhabitants to participate in the research process and, correspondingly, to understand the inherent weaknesses and potentials of such activity. (One might note here, in passing, the cost factor. Research focusing upon dispersed populations is inherently more time consuming and expensive than that which deals with more clustered, and thus accessible respondents. This factor explains, but does not excuse a tendency toward urban domination of Federal research.)

Although careful attention to local conditions and trends in rural America has been woefully inadequate, national analyses on the broad continuum from urban to rural paint a dismal contrast between life as it is perceived and reality. Various Federal agencies report that with only 27 percent of U.S. population "non-SMSA" areas contain 44 percent of the Nation's elderly poor, 53 percent of the Nation's educationally deprived, 56 percent of the Nation's medically underserved, 49 percent of the substandard housing units, and 65 percent of the Nation's homes without complete plumbing.

These most gross indicators, the product of research, contrast dramatically with prevailing rural and agrarian mythology. These realities are painful and dramatic; they are especially ill-received when few policy alternatives are available. As the ultimate bearers of bad tidings, research and researchers are understandably resisted by many rural peoples.

While one may agree that such social and economic research is vital to rationale decisionmaking and, thus, development of the capacity to self-determine and control of one's collective destiny, such philosophically based arguments will find little support among those who do not enjoy the relative autonomy of university and government laboratories. Dr. Thomas' hardnosed position on what we Americans ought to know about our collective selves assumes that all enjoy the leisure which afforded him the opportunity to raise such issues of global concern. However, if we are to continue public activity from the luxury of a wealthy and increasingly welfare-oriented state, the seemingly esoteric desire to systematically identify realities of societal need becomes a political imperative. Such activity is clearly best served politically with the full support and involvement of all potential constituencies. This discussion has briefly pointed to some of the intrinsic factors which have become obstacles to systematic research oriented toward, and supported by, rural peoples. The key conclusion drawn from this general overview of the situation is that research in rural areas is not an activity with massive constituent support. Unfortunately, research activity remains an agenda item; it competes with other pressing issues for support and has not become an inherent part of any ongoing process. Discussion which follows explores the immediate and necessary role of research in the competitive struggle for public financial support. In the context below, requirements imposed from outside of rural areas insisting upon research are viewed as extrinsic factors.

EXTRINSIC FACTORS: RURAL RESEARCH FOR THE SAKE OF COMPETITIVE GRANTSMANSHIP [2]

Comments in the preceding section point to factors which explain potential resistance to research and data utilization in the rural community. The basic resistance of rural people to research and concurrent tendencies toward greater data use were associated with a hostility to the more centralized and bureaucratic institutions of American society. It is precisely from those hallowed halls in the Nation's Capitol (where the key phrases "need assessment," "program evaluation," "impact analysis," and "public accountability" now echo) that new pressures for local research are exerted. In order to stay in competitive running for State and Federal program support, local units must engage themselves in some aspects of the overall game. In short, despite all protest to the contrary, rudimentary empirical grasp of local conditions must be demonstrated in order to successfully enter the program funding arena. This factor represents a powerful persuader irregardless of how participants interpret the accountability initiatives.

While maintaining sympathy to the roots of resistance to data use and to the current deplorable state of rural data presentation, it is clear that considerable pressure exists to encourage greater utilization of research in rural areas. It will be argued here that this pressure for documentation is not without redeeming features. Although the notion of public accountability does not enjoy a consistent definition or universal public acclaim, it is precisely in this area that the greatest promise for equity exists. Most simply, a systematic assessment of needs is the only way policymakers can objectively establish priorities. So too, accurate measures of impact—positive changes in those indicators of need—are the only rational standard available for evaluating program success.

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[2] Several of the observations in this section are based on a working paper by Mary B. Deming and Fred Schmidt, 1977, Vermont Community Data Bank, University of Vermont.

Under activities identified as the "new federalism," general revenue sharing, block grants in law enforcement, health, community development, and manpower, and so on through some 1,200 domestic programs, increased planning, determination, budgeting, and management at the State and local level are required. From needs assessment through grant application and program evaluation, rural communities are at a distinct disadvantage when contrasted with other competitors. Thus, they consistently lose Federal and State funds that could be used to improve the local quality of life. In Vermont, for example, it was recently reported that of 20 communities that applied for community development money, nine received grants totaling $1.7 million. Some 230 communities did not even apply, "probably because they were unable to cope with the time-consuming and somewhat complicated grant applications" (Illuzzi, 1977).

There are many explanations for the failure of rural areas to compete for Federal funding. Since grant applications require data to justify requests for funding, access to social indicator materials presents one major stumbling block. Inadequate data bases reflect the failure of Federal agencies to provide data for rural areas, and even though such information may be routinely collected, the inability of rural areas to gain access to such information presents a second obstacle. Federal agencies collect data in rural areas but (1) may fail to produce the needed tabulations, (2) fail to produce tabulations for all geographic areas, and/or (3) disseminate the data only in a computerized nonprint form. Rural areas do not have the personnel or resources to collect their own data, and if they do, the results are rarely published in a form that is accessible to other data users.

However, even when census data are available and local data sources have been developed, the results may not be communicated to all data users in the State. In New England, for example, there are currently hundreds of data collecting and data using individuals and organizations. While each group has some unique data requirements, many use common sources of information about rural communities. (These include sources such as the reports of the U.S. Bureau of the Census, materials concerning social as well as economic indexes for the agrarian sector produced by the U.S. Department of Agriculture, vital statistics from the State Department of Health, data generated by town listers, information collected by local and regional planning boards, etc.) Although the rural States in New England are relatively small, they are typical of many other rural States. Here in New England each group works in relative isolation, aware of their own resources and those of other agencies and organizations with which they have frequent contact, but largely unaware of similar research activities conducted by those who are separated by tradition, institutional "distance" or academic preparation. In addition, there is a lack of centralized effort to maintain records of research contracted to a variety of out-of-State public and private agencies. It is clear that the lack of communication and poor coordination among data users has served to the disadvantage of research in many States.

Most agencies collect and store information in the form that is best for their own purposes, making it less useful for other agencies. It has been determined that at least 26 different types of service areas have been designated within one New England State, Vermont. Data for service areas in one agency cannot be used by another, unless the building blocks of the two types of service areas are the same and data are retained for these subunits (municipalities, fire and school districts, and watersheds, for example). Identification of the needs of various agencies and of ways in which data can be more widely useful would increase the resources available to any one agency or community. Such lack of coordination is particularly serious in the light of the increasing demands for statistical services and accountability. Most rural States and open county areas with small populations and miniscule research budgets must maintain an administrative structure capable of meeting local needs and the growing statistical requirements of Federal programs.

In summary, then, it should be clear that urban grant applicants can be easily distinguished from their rural counterparts. Consider the following comparative research scenario. A hypothetical application requires information on substandard housing in the community and is pursued by urban applicants as contrasted with rural applicants. Urban applicants may consult a recent volume of Statistical Abstracts, the County and City Data Book, or detailed published census data for the city from their department library. If necessary, they may turn to the department computer programer and ask that the necessary data be read from the census of population and housing tapes. From a computer printout, the application can be completed, possibly including a block-by-block, or ward-by-ward, comparison of substandard housing within the city. The urban planning department may also be annually updating additions and subtractions to housing inventory, may conduct an annual housing survey, or may be, concurrently, building estimates of housing changes through computerized processing of building and rehabilitation permits. If necessary, housing data is not readily available to the urban grants person, large numbers of "experts" can be consulted on issues of data sources and interpretation. In short, urban applicants can be confident that required data are available and accessible.

Rural applicants also begin with a search through published material. They are likely to find appropriate tables on substandard housing for the State and counties, and occasionally for the nearest urban place, but rarely for their own small communities. They may then go to the microfirm version of selected summary computer tape data if the local library has it. Frequently, data in this form exist only in the State capitol or in the State university library; the user must be sufficiently mobile to reach those locations. Should this activity fail to produce necessary information, a summary tape processing center could be consulted. Many rural States do not have such centers, so computerized records will be maintained in a multistate regional center. Rural applicants must communicate their needs over long distance and, subsequently, need funds to pay for printouts and hard copy of the requested information. Should the printouts arrive, the data may well be incomplete because of a variety of suppression codes used to protect individual households in small towns. In any event, the data base is smaller for rural applicants, and more resources are required to locate what is available. There are fewer specialists to aid local grant seekers in the search for data or, as critically, in assessing data reliability. To decide just when the search becomes counterproductive is a major decision for rural applicants.

The urban applicant, although facing more competition, is likely to submit a complete application. The rural applicant is likely to submit an incomplete application, or one including statistical data based on a large number of assumptions and inferences. In fact, the rural applicant is more likely than the urban applicant to give up long before the application process is completed.

It is certainly no secret that rural areas have suffered inequity in their activity to solicit Federal funding to meet local needs. The discussion above has identified some of the access issues faced by those in rural areas who would attempt to participate in the pursuit of Federal support. These observations were not based on the idle conjecture of frustrated academic researchers. The outcomes from the disadvantageous position of rural constituents are dramatic and noteworthy for they illustrate the end result of a nonapplication. In the preceding discussion information concerning realities of rural need, concerning poverty among the elderly, educational deprivation, medically underserved, and housing inequalities was presented. Consider briefly, the nature of program response to each of these selected rural needs:

1. With 44 percent of the Nation's elderly poor, rural programs received only 18 percent of the 1975 Federal grant program dollar aimed at aiding the elderly.
2. With 53 percent of the Nation's educationally deprived, rural areas received only 34 percent of the 1975 HEW's outlay for educationally deprived children.
3. With 56 percent of the Nation's population living in medically underserved areas, rural areas received only 24 percent of the 1976 Federal outlays for health services.
4. With rural needs in housing represented nationally by reflecting some 65 percent of the Nation's housing without complete plumbing, in 1975, Federal outlays for water and sewer projects were only 25 percent of the total Federal response.

Of course, factors other than just research capacity explain the relative disadvantage of rural applicants in the successful pursuit of external moneys. However, given the current inequities in research activity and access to information which characterize rural and urban areas, we must accept the extrinsic factors raised above as part of the problem.

CONCLUSIONS AND RECOMMENDATIONS

Several of the many intrinsic and extrinsic factors which affect the conduct of research in rural areas and small communities have been discussed. These comments were predicated on the assumption that systematic and accurate information about rural America is of critical importance. It is important for two reasons. One, there is an inherent value in activity which promotes objectivity, as separated from mythology, in addressing local perception, rural conditions, needs and issue priorities. As Dr. Thomas has indicated, we Americans are at a point in history where we desperately need to know more about our collective selves. The quest for greater knowledge about the conditions of life in this country is imperative for the rational pursuit of individual as well as community decisionmaking.

Second, if we are to achieve a balanced national growth policy, population pressures on the suburban and urban areas must be reduced. A key to creating that reduction is a more equitable distribution of resources in order to create an atmosphere conducive to the retention of present rural peoples and a continuation of recent trends toward a better population balance. Currently, it is clear that rural areas suffer proportionately greater need; yet they operate in a context where information, the fruit of productive research, is extremely limited. Such data are vital to local as well as State and national policy formation.

In sum, research processes—objective, scientific attempts to understand the physical and social universe—hold the potential to counteract the prevailing impact of special interests which currently influence policy formation, program design, and subsequent allocation of scarce resources in local, State, and Federal political arenas.

This latter comment leads directly to the first, most general recommendation. At this point in time, research is only one of many pressing issues clamoring for special attention. Research activities must be elevated from the special interest issue milieu to become an inherent part of the basic public accounting and policy evaluation system aspired to by all levels of decisionmaking in this society. Toward this end the following specific activities should be considered.

1. In coordination with the formulation of a rural and a rural development policy, efforts to improve the flow of technical assistance to rural people, organizations, and governmental units must be pursued. This includes increased Federal allocation and imaginative design for technical assistance activities at the extension service and FmHA's Rural Development Service, and those bodies external to USDA including CSA, HUD, DOL, ACTION, and HEW. Each of these activities involve base line research activity, a fundamental component of technical assistance which provides the description of local conditions essential for local decisionmaking.

2. In order to further coordination of policy intent with positive impact upon rural people, existing structures which have potential to provide feedback to Federal agencies must be augmented and supplemented. If programs are designed with the primacy of local and regional conditions kept firmly in view, this feedback function is mandatory. One critical contribution of such feedback is the designation of research priorities. The mechanisms for local government determination of research needs should be strengthened. Existing underfunded programs with such a capacity include the community resource development activity of extension service created under title V of the 1972 Rural Development Act. At a State level they include regional plan-

ning organizations, an inconsistent number of State administrative bodies and associations of local units.

3. The activities at Federal and State levels must be conducted with greater correspondence to the needs of the entire rural sector. One means to this end is the more thorough integration of research responsibilities with existing governmental missions. Such an activity includes the following research scenario:

(a) Identification and desription of all characteristics of rural society—see Recommendations 8 and 9 for greater detail.

(b) Identification of top priority areas as dictated by human need.

(c) Continued development of program supportive technology, which includes the design of alternative program and organizational strategies.

(d) Followthrough research on the impact and success of varying program strategies.

(e) Research evaluation of program, and accompanying technological support, impact by utilizing measurement of rural conditions (step 1) before and after program implementation.

A case must be made for greater appropriations for rural research on the basis of the argument that research is not only a public service but is, in addition, an integral part of maintaining programs which correspond to constituents' needs.

4. Thorough evaluation of the conditions under which current research priorities are established must be undertaken. Such a task force must focus upon efforts to make advisory committees more responsive. In addition, a careful review of how research funds are allocated is needed. Current evidence suggests that the size of a land grant college experiment station in a given region is a far more influential factor in research appropriation than the human needs of the rural sector of that region. In addition, such a task force should seek to change the general drift of agricultural research toward greater specialization and segmentation.

5. Rural development activities are likely to remain a function of USDA. It is imperative that they be given greater visibility and authority to pursue coordination. Section 603(b) of the 1972 Rural Development Act gave USDA responsibility for promoting what has been only a modest voluntary interdepartmental coordination of rural development activities. An integrated rural research program is virtually nonexistent.

6. The often proposed, but now buried, National Rural Development Information System (NRDIS) whose original mission was to collect, interpret, display, and disseminate research, program and performance information in the field of rural development should be reactivated.

7. A primary requirement of any operation like the proposed NRDIS is that date be provided to rural units of government to be utilized in grant application. Although the Federal Assistance Program Retrieval System (FAPRS) now serves local organizations concerning what programs exist, no single, accessible data source provides information required by grant applications concerning local conditions. It is recommended that a system proposed to parallel FAPRS with the information local units need to apply for Federal and State

support. This system could be assisted by Federal agencies but should be located in State and designed to be responsive to local government and organizations. All existing barriers to FAPRS and to the proposed rural data system—including cost, long-distance telephone access, lack of publicity, et cetera—should be removed to facilitate maximum local utilization.

8. We recommend that the numerous "holes" in the rural data set be closed posthaste. These include:

The systematic review and objective development of a set of criteria which define rural areas and, simultaneously, maintain the necessary flexibility to reflect local and regional variation. Minimally these should account for population, land area, dispersal of the population in the land, age dependency, occupational mix, racial and cultural heterogenity, and service infrastructure of clustered settlement areas. While this is not a simple task it is necessary that the criteria be clearly identified and the variety of criteria as they impact rural status be comparatively evaluated. Important work has been initiated in this area: Sher, 1978; Babin and Field, 1977; Hines, Brown, and Zimmer, 1975; Fuguitt and Beale, 1975. These findings must be synthesized and brought into the policymaking arena.

9. New initiatives are required in terms of data collection in a number of areas. We recommend that activity be initiated or augmented in the following critical areas: Land ownership, employment, underemployment, and unemployment, distribution of ethnic, racial, and cultural minorities who experience special problems to service access, greater attention to local life quality profiles including health, housing, crime, and literacy information, comparative costs of service delivery, accurate information on the relative amounts and impact of Federal and State public outlays.

10. In 1978, Senator Leahy, Vermont, introduced the following language in the Senate Appropriations Committee's report on Departments of State, Justice, and Commerce (Senate Report 95–1043):

> Small Community Data: While the committee recognizes the noble and necessary efforts of the Bureau to protect the privacy of individual respondents the committee is also concerned with the difficulties confronting small communities which are, in practice, denied access to census data because it is rendered incomplete or inaccurate by these very efforts. Therefore, the committee directs the Bureau to develop a study proposal which will analyze the special problems encountered by small and rural communities in their enumeration in and utilization of census data. The committee expects that the Bureau will keep it informed of the progress of this effort. The areas to be addressed must include alternative aggregations of data, sample size selections, data presentation format, and the development of mechanisms to better distribute census data to ensure its availability to local, rural, and small community planners. This proposal shall be completed promptly and implemented in the 1980 decennial census.

Current reports from the Bureau of Census indicate that the following progress has been made pursuant to the Leahy language: (*a*)

Sample size has been increased for small towns; (*b*) new ways of manipulating and making public rural community data are being pursued; (*c*) a community profile format is under development; and (*d*) State data dissemination centers are being established with joint university-State agency cooperation. It is our recommendation that these positive steps toward better and more accurate information dissemination be continued and institutionalized. Moreover, better documentation of data services and procedures in Census Bureau publication must be developed.

11. Certain tabulation procedures on the part of the Census Bureau would increase the data available to small areas. First, data for small towns could be aggregated to reduce the vulnerability to suppression. It is common practice among those who use census data to aggregate smalltown data by county or State. Here we simply recommend that the census "group" several small communities, adjacent to one another, thus creating a pool of relatively similar units within a county. Pools of community data would be large enough to reduce sampling error, yet small enough (subcounty) to be of sufficient sensitivity for local programs and grant applications. Second, the number of categories reported for a given variable could be reduced if suppression were likely to occur. Thus, small towns might have data suppressed if income were divided into 10 categories, but would have data available if income were divided into 5 categories.

12. The urban bias now inherent in the census will not be changed without considerable pressure from local data users. More documentation of the problems caused by sampling in 1970 is needed. New plans for the 1980 census have been indicated above, but we recommend that attention be given to alternative tabulation strategies to increase the data available to rural areas as well as to overall sampling size. Until data quality is improved in rural areas, competition for Federal funding will favor urban areas.

13. Given the disadvantages of small scale which characterize many rural organizational units existing Federal and Statewide programs, in both the private and public sectors, should be utilized as networks through which to share research and planning skills and technology. Sophisticated research infrastructure and computerized software and facilities now exist in the private sector, for example, banking, at the universities and throughout many of quasi-public institutions, for example, hospitals. Creative efforts should be made to coordinate these materials to promote the integration of these potential services as they address the needs created in scarce resource rural areas.

14. And finally, we note greater coordination within rural areas would facilitate the collective purchase, multiple utilization, and systematic analysis of many materials which now are underutilized or nonexistent. Through the use of existing educational systems, including public television and radio, extension services, local planning and governmental units, information more adequately documenting the human condition can be shared on a local basis. Only when local data bases and problems of data accessibility have improved can rural areas be statistically accountable under the "new federalism."

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